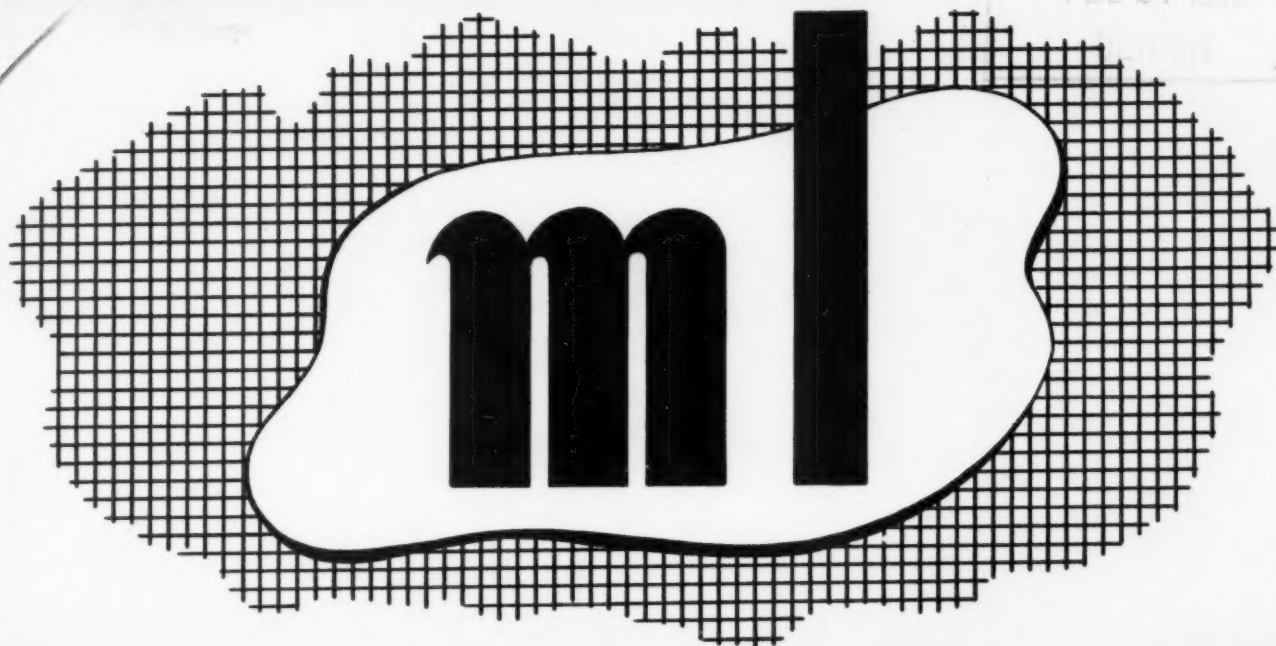


# MODERN

PUBLIC LIBRARY  
FEB 27 1942

FEBRUARY • 1942 • VOL. 10 • NO. 2



# LITHOGRAPHY



Permanent Cerise Toner 2642 P

## Senelith Inks

were the first lithographic inks  
made from dyestuffs  
treated with sodium tungstate  
for better sunfastness  
and are still leading  
with their outstanding resistance properties

The Senefelder Company, Inc.

*"Everything for Lithography"*

32-34 Greene Street

New York, N. Y.

---

★

*There still are people who want*

# GOOD WORK

---

★

**T**HESE are difficult times. For your customers. For you. For us. Today we're all in the same boat.

In many lines shortages exist. In others, new measures of quality have become necessary.

But one condition has *not* changed. Your customer still wants a good job for his money. He still expects good printing on dependable paper. Hammermill recognizes that the customer's wishes are important.

Within the limits of government restrictions, Hammermill Bond still sets the standard of bond paper quality. It's dependable. It still performs well in your shop and in your customer's business.

As it has for 30 years, Hammermill advertising continues to make Hammermill Bond the best known name in paper. As it has for nearly half a century, Hammermill craftsmanship continues to make paper that lives up to its reputation. Today, more than ever, Hammermill Bond is "the name that helps you land the job . . . the paper that helps you keep the customer."

**HAMMERMILL  
BOND**



# Interested in FREE Help?

That's the purpose of our monthly mailings to thousands of men who sell lithography throughout the nation. We are continuing this effort in 1942 with the hope of being helpful. Are you on our mailing list? If not, send us your name, and the names of other interested people in your company, on the coupon below.

## Permanized Papers

MAG-CONTENT



WHITING-PLOWER PAPER COMPANY • 14 WHITING ROAD, STEVENS POINT, WIS.

Yes, we are interested in receiving your monthly mailings of interest to lithographers. We understand there is no charge or obligation.

---

---

---

---

---

---

---

---

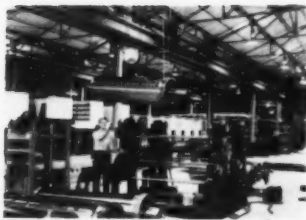
Requested by \_\_\_\_\_  
Position \_\_\_\_\_  
Firm \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_

Do not hesitate to send additional names if the coupon does not provide sufficient space.



# MODERN LITHOGRAPHY

PUBLISHED IN THE INTERESTS OF LITHOGRAPHERS EVERYWHERE



## THE COVER

The nation's claims are first. For the duration press manufacturers will be unable to accept orders for new presses, but all will zealously service presses in operation. And all are endeavoring to continue their research and development programs in anticipation of the time when press orders may again be accepted.

February, 1942

Volume 10 No. 2

Why is it Chicago has all the female lithographers? We counted five, including the sister team of Kehoe & Lau at the NAPL's Chicago meeting last month. What's more all were familiar with the technical procedures involved in producing lithography. They were on hand throughout the 4-hour technical quiz taking notes, asking questions and at the same time answering quite a few. By the bye, don't miss getting a stenotyped report of that technical session if you can help it. A gold mine of information. Write to NAPL headquarters. (Page 22)

Why is a good litho ink? Plain truth is that often neither the lithographer nor the ink manufacturer know why some are good and some are bad. All of which points to the fact that lithography is still very much of a craft instead of a science, with its chemistry only partially understood. It is not too well understood that litho inks are subjected to chemical action which letterpress inks avoid. On the lithographic press during printing a large number of chemical reactions take place, any one of which markedly affects the lithographic ink used in printing the job. (Page 33)

How will the metal lithographer fare in the months ahead? Canned foods will in all likelihood be distributed in somewhat reduced quantity and variety. On the other hand, production must be expanded to feed Uncle Sam's growing military establishment. So it's an open question. (Pages 35 and 37)

## WHAT YOU WILL FIND IN THIS ISSUE

	Page
Editorials . . . . .	21
NAPL Holds Mid-Year Meeting in Chicago . . . . .	22
Job Control in Plant Management . . . . .	25
By Rex G. Howard	
War-Time Shop Strategy . . . . .	31
By Merle S. Schaff	
How Research Can Improve Litho Inks . . . . .	33
By William H. Wood	
The Metal Lithographer Meets the Crisis . . . . .	35
By E. Ronald Byers	
As Cannery Meet . . . . .	37
By H. H. Slawson	
Washington Letter . . . . .	39
By Jay A. Bonwit	
War and Lithography . . . . .	43
Offset Press Operation . . . . .	47
By Lawrence Grennan	
Offset Paper at Work . . . . .	49
By William Bond Wheelwright	
In and About the Trade . . . . .	50
New Equipment and Bulletins . . . . .	59
Lithographic Abstracts . . . . .	69
Where-to-Buy-It . . . . .	74
Classified Advertisements . . . . .	75
Advertisers' Index . . . . .	77
Tale Ends . . . . .	78

## MODERN LITHOGRAPHY

Reg. U. S. Pat. Office

GRANT A. DORLAND, President; IRA P. MACNAIR, Vice-President; WAYNE E. DORLAND, Secretary-Treasurer. RICHARD ROLEY, Editor. Published monthly on the 15th by The Photo-Lithographer, Inc., Publication Office, 3201 Arch St., Philadelphia, Pa. Advertising and Editorial Office, 254 W. 31st St., New York, N. Y. ADVERTISING RATES: Advertising rates made known on application. Closing date for copy—20th of the month previous to date of issue. SUBSCRIPTION RATES: \$3.00 per year in the United States, \$4.00 per year in Canada. Single copies, 30 cents. Entered as second class matter at the Post Office at Philadelphia, Pa., under the Act of March 3, 1879.

FEBRUARY 1942

5



**The Prior Claim  
of  
National Security**



No man need be told today that our country's security depends on our military and naval might. These are times that call for resolution and endurance . . . for unstinting cooperation and sacrifice to the end that this nation's armed forces shall have quickly every weapon and aid needed to finish the job.

We of the Miehle Printing Press and Manufacturing Company have taken our responsibility most seriously. We are manufacturing large quantities of ordnance for the United States Navy and many machine tools so sorely needed by hundreds of other manufacturers anxious and waiting to increase their production of defense materials.

Through early participation in this effort and by virtue of long experience in working to high standards of mechanical excellence, our production is well under way . . . even ahead of schedule in a number of items. And we are naturally proud that Miehle was one of the first fourteen American industrial concerns whose management and men were honored with the U. S. Navy's famous "E" award for "outstanding performance in the production of naval ordnance material for the national defense program."

The extent of our participation in the National

Defense Program has necessitated a considerable reorganization of our staff and equipment. We are not unmindful of our obligation to the many users of Miehle Printing Presses and to the graphic arts in general. Our customer relationships, painstakingly built over many years, are invaluable to our company's present and future . . . probably more valuable than all our physical assets combined. And so, in our plans we have provided for:

1. Repair part and machinist service as usual.

2. The construction of new machines to the maximum extent we are able to procure necessary materials.

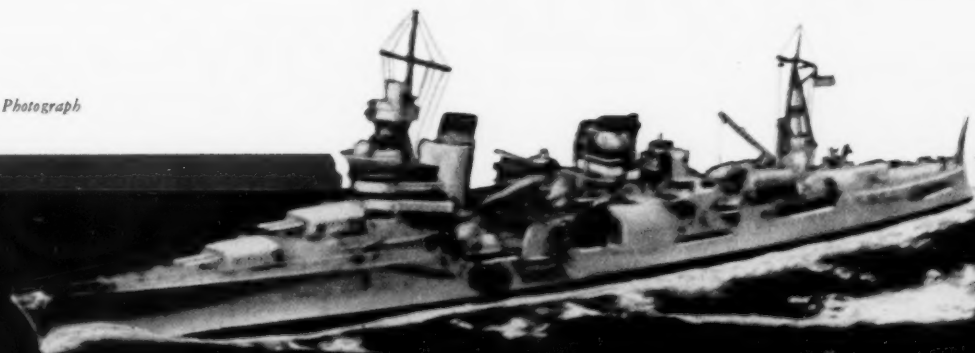
3. Continuation of engineering effort to the end that postwar requirements may be met by improved Miehle products.

The extent to which we shall be successful in meeting the needs of the graphic arts industry in these trying times is certain to hinge on many factors beyond our control. We are sure that printers will recognize and appreciate this fact and we are both proud and grateful for the splendid spirit of sympathetic understanding which has already been manifested in this regard.



**MIEHLE PRINTING PRESS & MFG. CO., Chicago, Illinois**

*Official U. S. Navy Photograph*





*America's Choice*  
**MERCURY  
PRODUCTS**

**N**O compromise with quality is permitted under Mercury standards. That's why, in every state in the union, Mercury Rollers and Blankets are accepted by lithographers as essential tools for good workmanship. Pressmen know that after thousands of impressions the sturdy surface of these units remain unaffected by the harsh chemical action of ink. Pressmen know, too, that these Rollers and Blankets have change of pace to meet varying requirements of jobs with light or heavy ink coverage. Mercury Products are built by craftsmen **FOR** craftsmen.



**RAPID ROLLER COMPANY**

D. M. RAPPORT, Pres.

Federal at 26<sup>th</sup> Street

CHICAGO

SAVE WASTE PAPER  
AMERICA NEEDS IT

## SAVE YOUR BUSINESS

In these days of conservation—when we are admonished to save everything that might accelerate the machines of war—let us not foolishly neglect to save our own businesses!

Salesmen, for example, can do other things than sell—as many realistic sales managers are proving. They can buy, teach, investigate. They can cultivate key accounts and key dealers, undertake market research, and make consumer surveys—and many of them, technically expert, are even entering the laboratories of their employers.

Advertising, too, need not sell merchandise to be effective, nor must it sell merchandise to be productive. It can sell goodwill, information, tolerance, new company

policies, prestige, and faith in the future. It can sell *against* forgetfulness, hearsay, rumors, gossip, and lies.

The power of salesmanship—printed or personal—*can best be conserved by being kept productive!*

As "Paper Makers to America", this corporation regards the advertising of Mead, Dill & Collins, and Wheelwright fine printing papers as essential as the tireless research so necessary to keep their strength, finish, and printability unimpaired.

America's Victory at war must not be handicapped by neglecting to conserve the businesses, the products, and the opportunities of peace!

*Offering a completely diversified line of papers in colors, substances, and surfaces for every printed use, including such famous grades as Moistrite Bond and Offset; Process Plate; Wheelwright Bristols and Indexes; D & C Black & White, Printflex, Canterbury Text, and De & Se Tints.*



### SALES OFFICES

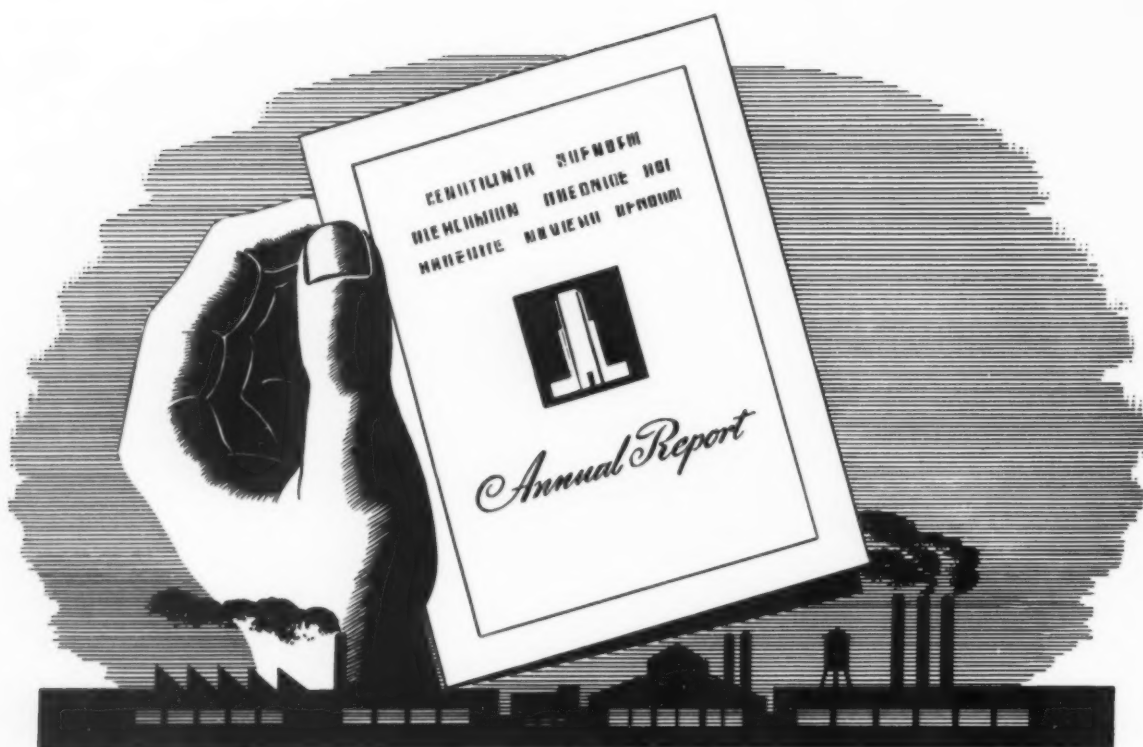
THE MEAD SALES COMPANY  
230 Park Avenue, New York City  
DILL & COLLINS INC.  
WHEELWRIGHT PAPERS, INC.

New York  
Chicago

Philadelphia  
Dayton

Boston  
Kingsport

# THE MEAD CORPORATION



## THERE'S AN *Annual Report* JOB FOR YOU IN EACH OF THESE PLANTS

There's new business for you in the old year's business. This is open season on annual reports. Go after them—with the right Eagle-A papers!

The choice of paper is important. Besides suggesting quality and stability, Eagle-A papers suitable for offset lithography are

uniform, easy printing, profitable in the pressroom and the bindery.

In the well-known Eagle-A group there is a wide choice of papers ideal for printing annual reports by offset lithography. Ask your Eagle-A paper merchant for sample sheets of—

- EAGLE-A ALBION OFFSET
- EAGLE-A OPAQUE
- EAGLE-A AMERICAN EGGSHELL TEXT

- EAGLE-A ALBION TEXT
  - EAGLE-A GLENDALE
- and other dependable grades.

AMERICAN WRITING PAPER CORPORATION  
HOLYOKE MASSACHUSETTS

Manufacturers of nationally-known Eagle-A Bonds, Ledgers, Offsets, Writings, Bristols, Mimeographs, Books, Covers, Advertising Papers and Papeteries. Also Technical, Industrial and Special Papers.

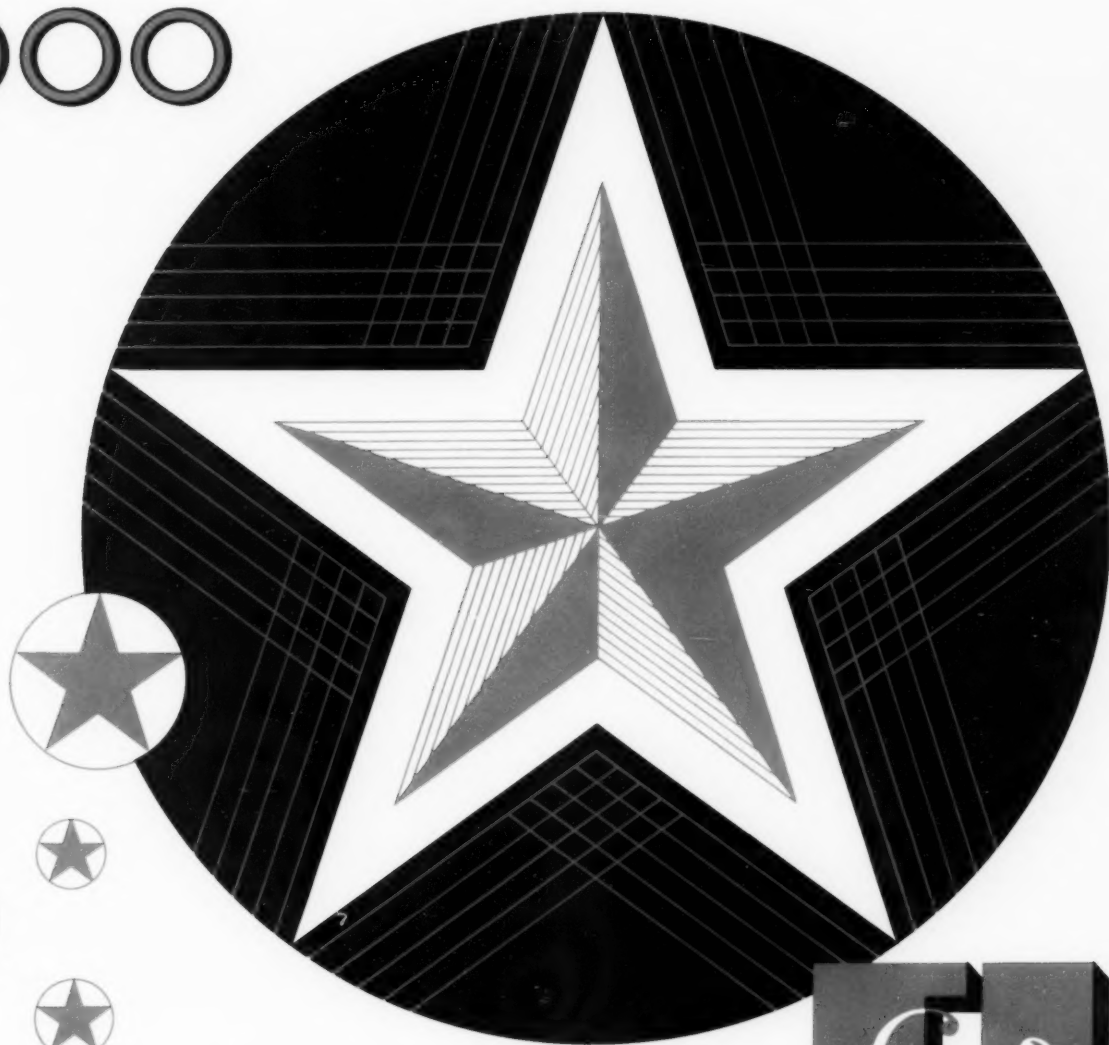




# IMITATION GOLD



No 10000



Metallic bronzes are becoming increasingly difficult to secure. To lithographers and their customers who used gold powder this represents a serious problem, but Fuchs & Lang can help you with a pigmented lithographic ink which simulates the appearance of gold. While it does not possess the glitter and brilliancy of gold powders, you'll find it an excellent substitute for many types of bronzing jobs.

**F&L**

**THE FUCHS & LANG MFG. COMPANY**

ESTABLISHED 1870 • DIVISION • GENERAL PRINTING INK CORPORATION

100 SIXTH AVENUE • NEW YORK, N. Y.

BOSTON CHICAGO CINCINNATI CLEVELAND FORT WORTH  
PHILADELPHIA ST. LOUIS SAN FRANCISCO LOS ANGELES TORONTO, CANADA

LITHOGRAPHIC



L-10

## A NEW AND DEPENDABLE AID FOR ALL LITHOGRAPHIC PLANTS

INCREASES PRODUCTION • SAVES PLATES AND CHEMICALS • REDUCES SCUM • IMPROVES HALFTONES

*Now in daily use throughout the country*

*in*

CAMERA ROOMS

PLATE ROOMS

PRESS ROOMS

ASK FOR BOOKLET GIVING  
DETAILED INFORMATION  
AND INSTRUCTIONS FOR  
USE, OR SEND ORDER FOR  
ONE \$3.00 PACKAGE, SUFFICIENT FOR TREATING 128  
GALLONS OF WORKING  
SOLUTIONS.

*Wettsall L-10 is saving plates  
and vital chemicals : saving its  
very small cost many times over*

### The FUCHS & LANG MFG. COMPANY

(ESTABLISHED 1870)

Division • General Printing Ink Corporation

100 SIXTH AVENUE • NEW YORK, N. Y.

BOSTON  
ST. LOUIS

CHICAGO  
SAN FRANCISCO

CINCINNATI  
FORT WORTH

CLEVELAND  
LOS ANGELES

PHILADELPHIA  
TORONTO, CANADA

# **Jiffy**—THE ACCEPTED STANDARD FOR COMPARISON!

**The most imitated but unequaled  
Developing Ink yet formulated.**



## ← **For Surface Plates**

**Jiffy** comes packed in four-quart cans to a container at the minimum, or gallon price, in convenient hand-fitting POUR'N SEAL cans which eliminates waste.

## **For Deep Etch**→

**Jiffy** is made with a smooth, heavy-bodied, highly etch-resisting quality. Its clean, sharp developing action eliminates all hazards of Smudging or Feathering even the finest half-tone dot.



When ordering **Jiffy** for Deep Etch be sure to specify  
"HEAVY **Jiffy**" or "DEEP ETCH **Jiffy**"

Sold by all our Dealers

**LITHO CHEMICAL & SUPPLY CO.** 63 PARK ROW  
NEW YORK, N. Y.



*How Can You  
help your  
Customers today?*



You can do more for your customers today than ever before. They need ideas for folders, booklets and broadsides on subjects like the following:

Better Use of Product

Delayed Deliveries

Quick Deliveries

Helpful Literature

Dealer Sales Aids

Price Catalogs

Buying Information

Product Changes

On any job you do, you want to offer the best paper available at the price. When the job calls for rag content bond, ledger, index bristol or lightweight, use a NEENAH paper. You will get better pressroom performance and give greater consumer satisfaction.

**NEENAH PAPER COMPANY**

**NEENAH, WISCONSIN**



*Manufacturers of Fine Rag Content Bonds, Ledgers, Index and Lightweights*

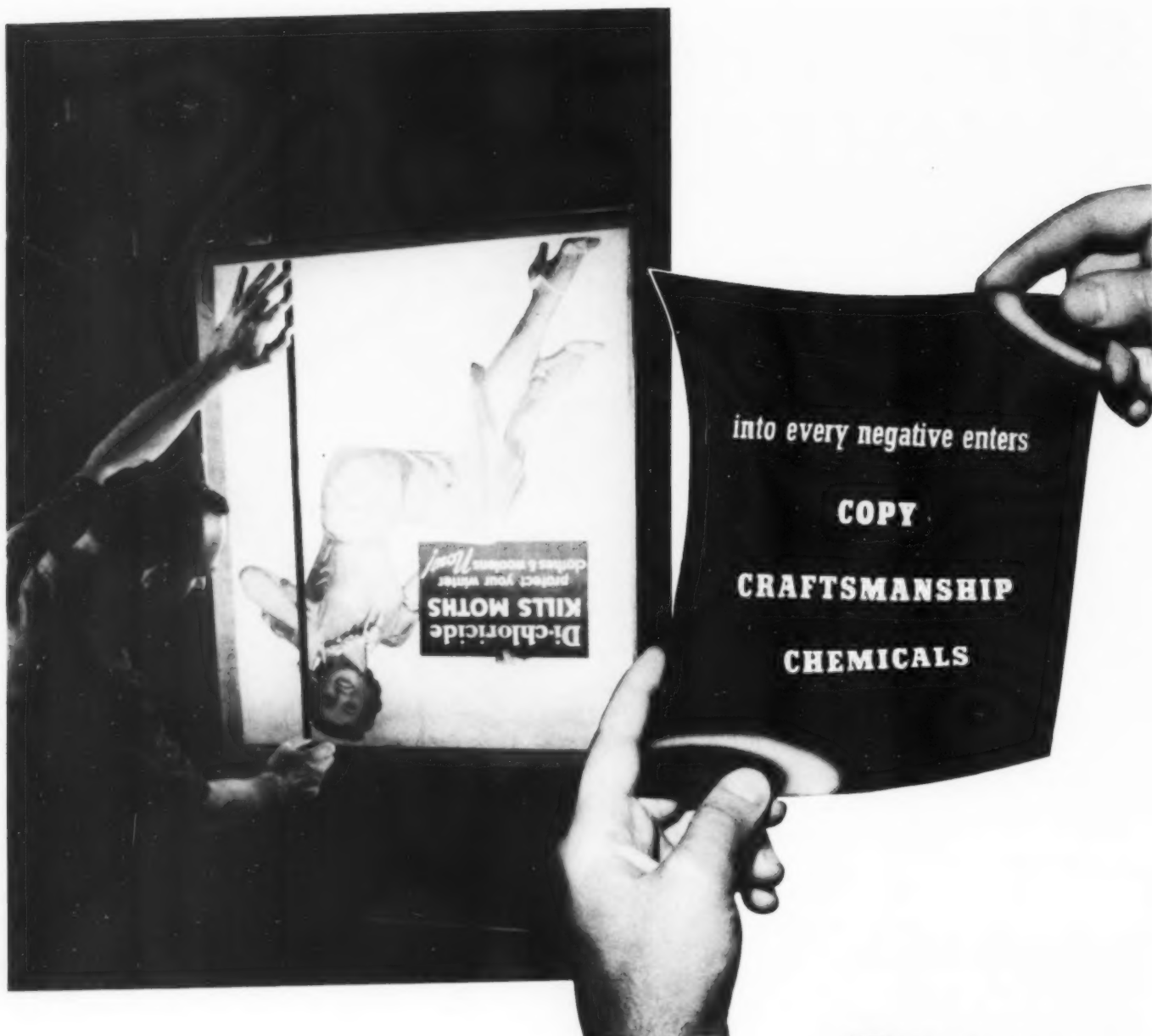
**WHAT** you want...  
**WHEN** you want it...  
**WHERE** you want it...



**Sinclair and Valentine Co.**

MAIN OFFICE AND FACTORY: 611 WEST 129th STREET, NEW YORK, N. Y.

Albany	Birmingham	Charlotte	Cleveland	Dayton	Havana	Kansas City	Manila	Nashville	New Orleans	San Francisco
Baltimore	Boston	Chicago	Dallas	Detroit	Jacksonville	Los Angeles	Miami	New Haven	Philadelphia	Seattle



TO PRODUCE a finished negative of the better type, you need better copy, better craftsmanship and better chemicals. Merck chemicals for the graphic arts are *better* chemicals—the kind that go a long way toward producing *better* results.



**MERCK & CO. Inc.**

*Manufacturing Chemists*

**RAHWAY, N. J.**

NEW YORK: 161 Sixth Ave., PHILADELPHIA: 1649 No. Broad St., ST. LOUIS: 4528 So. Broadway • In Canada: MERCK & CO. Ltd., MONTREAL & TORONTO

MODERN LITHOGRAPHY





## ***Is your LETTERHEAD part of your PROGRAM FOR LEADERSHIP?***

"This is the Mutual Broadcasting System"...signing off... and the studio audience leaving after an important broadcast. Radio's only cooperative network, with a hook-up of 196 stations, carries leadership programs, gives their stations top service. And their choice of a Strathmore letterhead tunes in with that policy of the best.

Your audience can't always see *you*...but it *does* see your letterhead. And a letter on Strathmore Paper states clearly that quality is part of your program for leadership.

A letter on STRATHMORE BOND, or on STRATHMORE WRITING, costs less than 1% more than a letter written on the cheapest paper you might buy. And on STRATHMORE PARCHMENT, or STRATHMORE SCRIPT, as fine papers as can be made, a letter costs only 2.9% more. Such plus value, for so little cost difference, is sound business economy.

OUR PART IN THE WAR PROGRAM: Strathmore is devoting an important portion of its capacity to the production of papers for communication, records, blue prints, charts, maps, and other uses which are essential to the preparation and use of war materials.

Strathmore Paper Company, West Springfield, Massachusetts.

# **STRATHMORE**

**MAKERS  
OF FINE  
PAPERS**

FEBRUARY 1942

## **STANDARDIZE ON STRATHMORE**

STRATHMORE LETTER-HEAD PAPERS for offset printing are easier to sell because of advertisements like this...advertisements that tell why a fine letterhead is true economy...feature leading business firms that use STRATHMORE LETTERHEAD PAPERS.

This series appears in:

**FORTUNE  
TIME  
BUSINESS WEEK  
UNITED STATES NEWS  
NEWSWEEK  
FORBES  
ADVERTISING & SELLING  
TIDE  
PRINTERS' INK  
SALES MANAGEMENT**



## Put your best foot forward!

The best will be none too good in 1942, when industry will need every help in economical production.

Your Ideal rollers will help you maintain production schedules at a minimum of cost and with the least amount of worry.

Each year developments have been made to modernize Ideal rollers, and our latest development—Synthocraft rollers—is the result of careful analysis of the problems which soon will confront lithographers everywhere.

These new lithographic rollers are designed to do excellent offset work and yet remain

durable over a long period of time. The first cost is long forgotten by the time the rollers have worn out, and when the cost is divided over the years of service you will find it has been much less than for rollers made with other types of materials.

Ideal's synthetic materials have been able to meet the severe and exacting specifications on airplane motor parts used by the foremost airplane motor manufacturers of the United States.

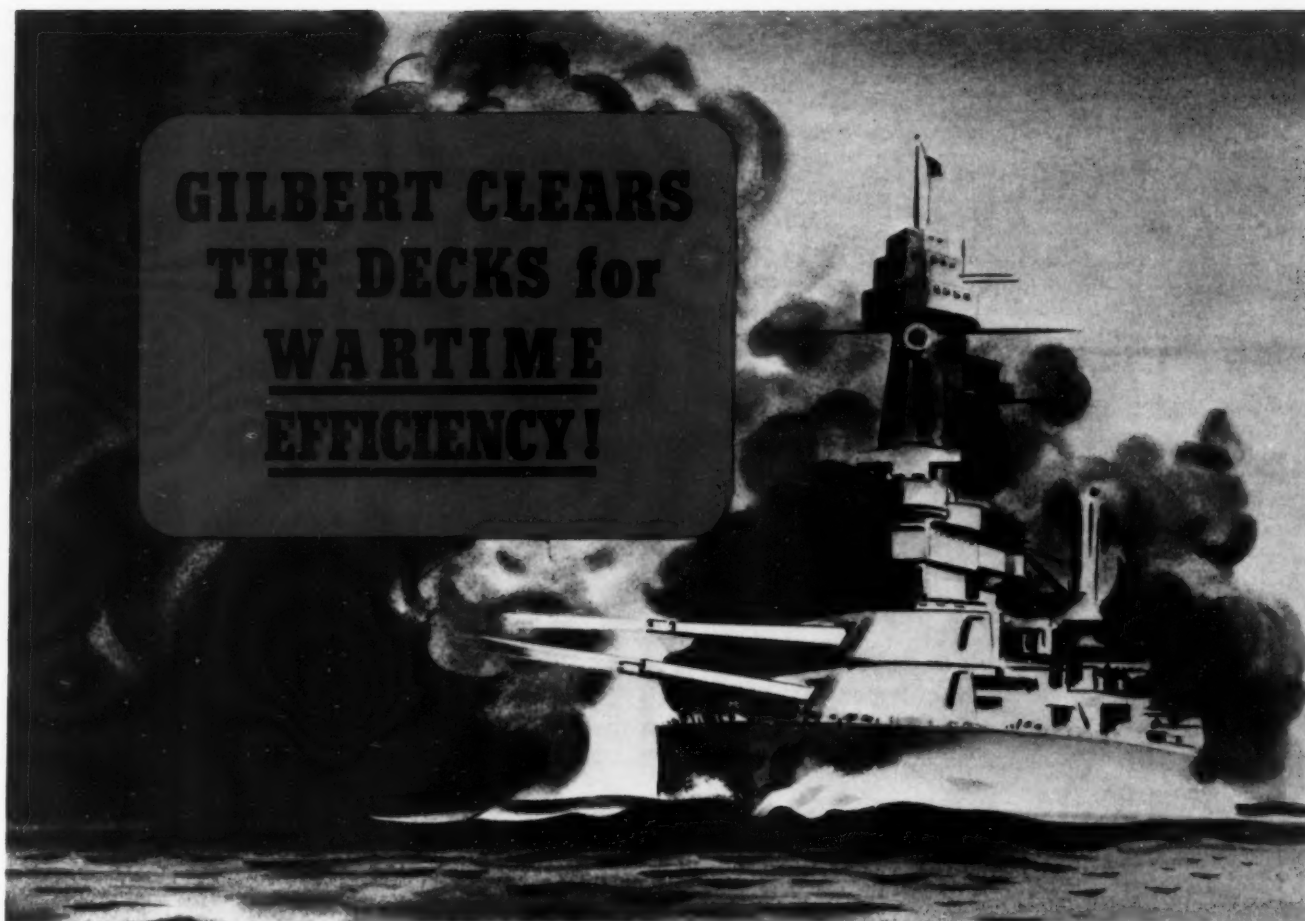
This proof of our compounding ability should reassure you that when it comes to our own particular field of making rollers, we can meet your most exacting demands.

### IDEAL ROLLER & MANUFACTURING COMPANY

CHICAGO, ILLINOIS

*Branch offices located in principal cities*

LONG ISLAND CITY, N.Y.



## The National Emergency Dictates Simplification of Paper Lines

**Gilbert DISPATCH Bond and  
Gilbert AVALANCHE Bond**  
now to be known only as

**GILBERT BOND**

**25% Cotton-Fibre-Content**

This is an announcement we planned to make almost a year ago. The growing demand for GILBERT watermarked quality paper, representative of this famous fifty-year-old name, made the announcement imperative.

But, the economies and restrictions of Defense did not make the new GILBERT paper announcement feasible. Now, actual wartime necessity dictates that paper lines be simplified . . . materials and labor be conserved . . . excessive operations be eliminated. That's why, as soon as present stocks of DISPATCH, AVALANCHE and ENTRY papers are exhausted, you will be supplied with GILBERT Bond and GILBERT Ledger.

As originally planned last year, the new GILBERT watermarked papers would be the best of their types that materials and skill could produce. *Today, they still will*

**Gilbert DISPATCH Ledger  
and Gilbert ENTRY Ledger**  
now to be known only as

**GILBERT LEDGER**

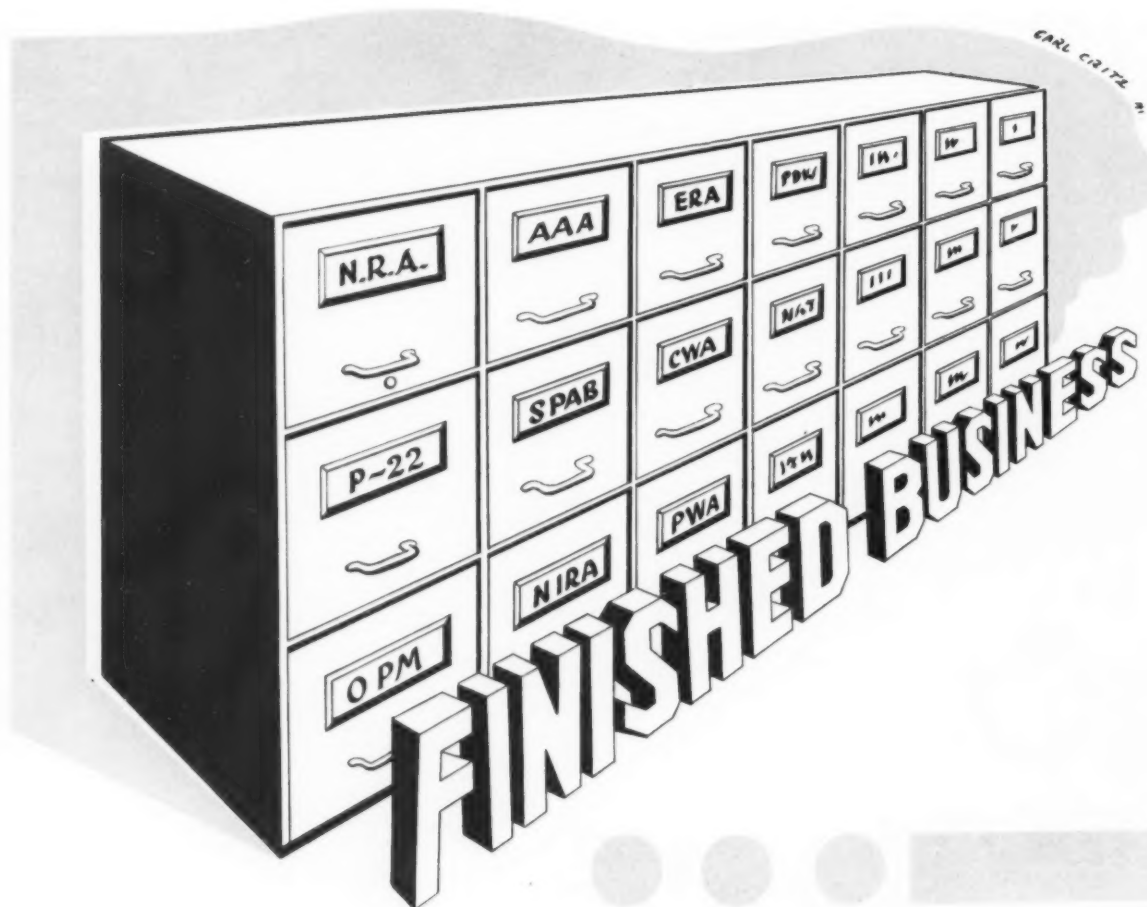
**25% Cotton-Fibre-Content**

*be the finest in their class . . . the finest 25% cotton-fibre-content papers that wartime restrictions will permit!*

Concentration upon GILBERT watermarked papers in our 25% cotton-fibre-content line will permit better productive facilities . . . better efficiency in deliveries to you through simplification of stocks.

The GILBERT Bond line will be available in white and the permitted color range, with an attractive cockle finish. A laid finish will be available in white and ivory. Envelopes to match in entire line. The GILBERT Ledger line will be available in white and buff, and six colors for machine posting. Your Gilbert paper merchant will be glad to give you any further information desired regarding GILBERT Bond and GILBERT Ledger. Gilbert Paper Company, Menasha, Wisconsin.





EACH month brings startling changes in the picture of Business and Government. Old bureaus are left behind as America turns the corner and slips into high gear for the national war effort. Lithography plays a significant part in the nation's greatest job. All branches of the Armed Services use offset extensively and many commercial lithographers are helping by producing the tremendous volume of offset work necessary to keep all-important defense plants operating at top efficiency.

The Harold M. Pitman Company is supplying Pitman Products to the Army, Navy and many less publicized branches of our government. The same high quality Pitman Products are available wherever lithography is used. Write or phone your nearest Pitman Dealer.

# HAROLD M. PITMAN CO.

LITHOGRAPHIC EQUIPMENT AND SUPPLY DIVISION  
JERSEY CITY, NEW JERSEY—150 Bay Street 51st Ave. and 33rd St.—CHICAGO, ILLINOIS

PACIFIC COAST REPRESENTATIVE... G. GINNERT, 1155 WALL STREET, LOS ANGELES, CALIFORNIA  
CANADIAN REPRESENTATIVE... LAYMER LTD., 90 NIAGARA STREET, TORONTO, CANADA





*experienced paper stretchers*

...to use Rising Papers. Executives... men with vision... waste-conscious men... men who know how to minimize extravagance.

These men will plan profitable printed advertising on economy budgets. They will build direct mail pieces on standard sizes of papers. They will keep their mailing lists up-to-date. But, above all, they will hold high the American ideals of quality that are result-getting and profit-producing.

To these men and to their businesses, Rising Paper Company offers a complete line of bond and writing papers for general correspondence, index card bristols for permanent and semi-permanent records, wedding papers and direct advertising papers.

Consult your Rising merchant today. There is one near you.



**RISING PAPER COMPANY • Housatonic, Massachusetts**



## **CERTAINLY PAPER WON'T BE SO BRIGHT CHLORINE HAS GONE TO WAR**

Chlorine is much less necessary for bleaching pulp than for war essentials to bleach the bones of dictators. Despite lower color, Champion paper still has the excellent printing qualities that long have made it a leader. Champion is a large and resourceful organization, and in its wartime products you may expect the same margin of superiority that has marked its production in normal times.



**THE CHAMPION PAPER AND FIBRE CO., Hamilton, Ohio**

MILLS AT HAMILTON, OHIO . . . CANTON, N. C. . . HOUSTON, TEXAS

*Manufacturers of Advertisers' and Publishers' Coated and Uncoated Papers, Cardboards, Bonds, Envelope  
and Tablet Writing . . . Over 1,500,000 Pounds a Day*

DISTRICT SALES OFFICES

NEW YORK · CHICAGO · PHILADELPHIA · CLEVELAND · BOSTON · ST. LOUIS · CINCINNATI · ATLANTA

# EDITORIALS

**W**E suppose printers and lithographers, being human, are as subject to too much Pollyanna on the one hand, and to too much hysteria on the other, as anyone else. And we suppose there are as many printers and lithographers as anyone else who still put group interest ahead of national interest at this time—who are still asking “What is there in it for me?” rather than “What can I do?” But we had thought, somehow, of the lithographer as more of a realist. Guess we were wrong. Certainly something that happened last month makes it look as though we were. Seems a group of printers and lithographers, feeling apprehensive about a possible loss of printing volume this year, and reduction in quality and number of colored inks, got together some samples to show buyers as examples of the kind of work they figured they could produce during 1942. If the buyer was thinking maybe he’d have to cut down on some of his printing on account of not being able to get the same quality and variety as before, why, maybe these samples would reassure him and he’d go right on buying pretty much as always. Then someone had the bright idea of going to the ink manufacturers. Now if the ink manufacturers would just guarantee the printer and lithographer that certain qualities in inks would be available, it would clinch it. Could the ink manufacturers furnish samples of color and quality which they would guarantee matching during 1942 which could be shown buyers of printing? Well—we weren’t there when this question was asked but we understand that at the mention of the word “guarantee” the ink manufacturers rose as one body and sang “Remember Pearl Harbor.” Guess we’ll have to give them the palm as realists this month.



**T**HERE has probably always been the type of politician who seeks to make political capital out of war. War breeds uncertainty and confusion in men’s minds. Even when far removed from the place of

battle there is a feeling of insecurity and bewilderment. The type of politician we have mentioned knows this and takes advantage of it. So under the guise of offering some expedient to security—be it a united industry front, an emergency council, or what-have-you—necessary for the “defense of our liberty, our properties and our lives and the winning of the war,” he proceeds to write his own ticket—a one way ducat to some Nirvana he has dreamed up where he’ll be Number One Man when the power and pelf are dished out. Needless to add, all of this is embroidered with the proper patriotic trimmings so it looks and listens like Kate Smith singing “God Bless America” draped in the American flag.

The lithographic industry has cooperated and will continue to cooperate, through its representative trade groups, with all other members of the graphic arts and related industries during this emergency and afterward. But we fail to see the necessity of pledging its cooperation at the risk of sacrificing its independence—and for what?



**S**OMETIME this month the U. S. Department of Labor will undertake a study of wages, hours of work and other economic factors in the lithographic industry. Questionnaires will be mailed directly to lithographers. Probably at no other time has the information which the Department of Labor requests been so urgently needed. It is expected that the data on type of product, materials and occupations of employees in the lithographic industry will be of great value, in the interests of lithography, to the various defense agencies. In addition, the information on wage structure and hours of work will be made available in summary form for the guidance of the Industry Committee appointed for the lithographic industry by the Administrator of the Wage and Hour Division. Lithographers are requested to be on the lookout for the questionnaires and comply with their requirements promptly.





NAPL officers and directors at the association's mid-western conference: standing, Allen H. Frost, Copifyer Lithograph Corp.; Rex G. Howard, Peoria Blue Print & Photopress Co.; William A. Krueger, Jr., W. A. Krueger Co.; Merle S. Schaff, Dando-Schaff Printing & Publishing Co.; Herbert A. Carr, The Mutual Press, Inc. Seated, Harry E. Brinkman, Foto-Lith, Inc.; A. G. McCormick, Jr., McCormick-Armstrong Co., and president of the NAPL; Miss Jessie Kehoe, Kehoe and Lau; and Walter E. Soderstrom, NAPL executive secretary.

## N.A.P.L. HOLDS MID-YEAR

**T**HAT the National Association of Photo-Lithographers is taking this war with a deadly seriousness, reflected in an increased sense of obligation towards its members and in its own self-appointed duty to be of greater service to the industry during this crisis, was revealed with a minimum of if's, and's and but's at the first Mid-west Regional Conference of the NAPL in Chicago on January 24.

On the morning of that day, a Saturday, over 160 lithographers and supply and equipment representatives gathered at the Palmer House in the not-so-Windy City this year—a condition which also might be aptly applied to the NAPL's conference—and settled down to business—that is, the War, and what can we do about it, to help, to survive, etc.,—with a brisk will and determination. And the conference

was just as brisk and determined at 7:00 P. M. of that Saturday evening as it was at the rap of Russell Miles' opening gavel at 9:30 the same morning.

However, with all the deadly seriousness with which the NAPL initiated this, the first of an annual series of mid-year conferences, it can never be said that it was ever dull. In fact, as the day lagged the tempo of the meeting was pitched



higher and higher, until at 7 o'clock in the evening there were seven participants in an information quiz on the platform answering questions simultaneously, and more being fired from every section of the audience. Reluctantly, the meeting had to be closed.

Russell L. Miles, publisher of the *Midwestern Lithographer*, who has been named executive secretary of the newly-formed Mid-western Section of the National Association of Photo-Lithographers, served as moderator and chairman of the day-long conference. As first speaker of the day he introduced Merle S. Schaff, former president of the National Association of Photo-Lithographers, of Dando-Schaff Printing & Publishing Co., Philadelphia. Mr. Schaff's talk was entitled "Shop Strategy in War," and no more appropriate subject or speaker could have been chosen to keynote the meeting.

Mr. Schaff's complete talk is carried in this issue, so we won't waste time discussing it at length here. Aside from its sound, constructive message, it set the tone for the rest of the day, which was such that if it had succeeded in doing nothing more, would have been a inestimable contribution. Mr. Schaff brought not worried thoughtfulness, pessimism or the sense of uncertainty prevalent in business circles these days to his hearers, but he brought a forthright, cold and practical analysis of a

hold his present markets secure while this war lasts? What can he do to find new markets? What, by all that's holy, sort of a sales program must he adopt if he is to survive this war? The Chicago meeting next heard two speakers on this subject: Allen H. Frost, president of Copifyer Corp., Cleveland, and Harry E. Brinkman, president of Foto-Lith, Inc., Cincinnati. Too long for inclusion in this issue, Messrs. Brinkman and Frost's papers will be condensed for the March number.

Of course, as those who attended the NAPL meeting at Cincinnati in September and heard him are aware, Harry Brinkman's pet advertising and sales philosophy, so far as promoting his own company is con-

trate on if he'll only go out and dig 'em up. Mr. Frost has no patience with the lithographer who feels that this is going to be a tough year because we are in a seller's market. That it is going to be a tough year, yes, but that there won't still be plenty of business for the alert lithographer, no.

FOR many months, yes, years, the present head of the National Association of Photo-Lithographers, Bud McCormick, one-half of the firm of McCormick-Armstrong Co., Wichita, Kansas, has made a study of printing and lithographing personnel problems. Mr. McCormick believes that the average printing establishment cannot very well afford to have

## **War-time conditions bring photo-lithographers together for regional conference; organize Mid-west section with Russell Miles exec. sec.**

# **MEETING IN CHICAGO**

condition which is growing increasingly important with each day: the morale of employees. With nice logic he outlined a suggested plan of strategy for the lithographers to adopt during the war. But more than anything he got the meeting off to a right start, a start characterized by neither pessimism nor optimism, but reasonableness and reality.

What's a lithographer to do to

cerned, is: get a competent advertising agency. Mr. Brinkman believes that the lithographer's advertising, if left up to him, is like the cobbler's children, etc., and is never taken care of. There is always some other person's job which has first demand on his time and productive energy.

Mr. Frost's thesis is that there is plenty of war time advertising markets for the lithographer to concen-

a personnel department which operates on personnel problems alone, nor one man to devote his time to personnel and nothing else. But he does believe that the average printing establishment can compromise to such an extent that personnel and employee relations problems are given the attention they deserve and should have.

Entitled "Personnel Policies for Operation Under War Employment

Conditions," he outlined the personnel program which his company has adopted and found successful, and how that program has been stretched, with an alteration here and there, to fit the present pattern of war. There's no denying that the defense industries have and are creating labor shortages in lithographing plants. How to adjust your plant to that condition, is the problem. This, of course, raises a touchy point: namely the creation of a competitive condition between defense and civilian industry. With all out for defense, or war, the predicament which many a lithographing plant finds itself in, imposes a psychological handicap and disadvantage which should be controlled. As Mr. McCormick pointed out, there is no section of civilian industry which has responded with more patriotism to the needs of our country in war than the lithographing industry, yet to find on the one hand that patriotic impulse balanced by the threat of extinction due to inability to obtain help to man our plants is confusing, to say the very least. Labor priorities may help to solve this perplexing problem.

The next talk, "Job Control in Plant Management," by Rex Howard, president of Peoria Blue Print and Photopress, and well-known director of the NAPL, is carried complete elsewhere in this issue. Mr. Howard went to great pains to make his Production Control System clear by distributing copies of his talk, illustrated by charts and forms before he spoke. Thus, everyone present could follow in detail the mechanics of his control plan. This, incidentally, will be distributed by the NAPL to all of its members in the near future.

As everyone who has heard Mr. Howard in the past at annual conventions can understand, he left no detail of his plan unexplained, this despite the obvious fact that it must have cost him considerable study, and trial-and-error experimenting. The intelligent interest shown by the lithographers in the plan Rex Howard has adopted for keeping his presses rolling with a minimum of lags and gaps, testified to its astuteness.

Next on the program was a report of progress by Walter E. Soderstrom, executive secretary, on "The Benefits and Operations of Membership in the NAPL." Mr. Soderstrom outlined the program which the NAPL has adopted for its members based on the war situation, pointing to the mid-western conference and the organization of a western section of the NAPL with headquarters in Chicago, as examples of the effort which the national organization is expending to serve more closely the needs of the lithographic industry.

As other examples of the strides the NAPL has made recently, Mr. Soderstrom called attention to the standard cost system which has been adopted; the appointment of a cost accounting consultant to study cost problems of photo-lithographers in a war economy; the close affiliation of the NAPL with other graphic arts groups in forming a representative body to present the industry's story to Washington; the growing value of the NAPL's confidential membership bulletins; and the tangible benefits which have grown out of the NAPL's information clinics, now an established part of every convention and conference.

Mr. Soderstrom stressed the imperativeness of unity within the lithographic industry, declaring that the question of the very survival of many lithographic plants during the coming year was one which could not be dismissed lightly. Only through the leadership and tight welding together of every lithographic establishment in the months to come could the needs of the industry at large be protected, he emphasized. He called the formation of a western section of the NAPL another milestone in the history of the NAPL toward recognizing its growing responsibilities, not only toward the nation in this crisis, but toward the individual lithographer, whoever he may be, or how small or large he may be, in his individual crisis.

**F**OLLOWING Mr. Soderstrom's talk, W. A. Krueger, Jr., president of the W. A. Krueger Co., Milwau-

kee, and director of the NAPL, described the purposes of the mid-western conference which he said were to further the educational objectives of the National Association of Photo-Lithographers, and to help establish working standards in administration, production technique and sales, throughout the industry. In a time such as this, Mr. Krueger pointed out, the annual convention of the NAPL was not enough. Changes were coming so rapidly, he declared, that the necessity for a mid-year meeting and the installation of another branch of the NAPL to serve as a medium for the exchange of ideas was imperative. Mr. Krueger expressed the hope that this, the first of such regional conferences, would be continued each year.

Mr. Krueger's talk concluded the morning sessions, and following adjournment for luncheon the conference heard Malcolm R. MacDonald, Priorities Field Service, Manager of OPM, Chicago District, talk on "Priorities in Printing and Publishing." Mr. MacDonald's principal point was that OPM, or WPB, as OPM has been dissolved, was to help the lithographer, not hinder him. While helpful in expressing a sympathetic attitude toward the lithographer's problems, Mr. MacDonald's talk threw very little light on the availability of strategic materials not already discussed in these pages. Nor, of course, was he able to give any definite assurances regarding the future. Following his talk he invited questions from the floor, assisted by Mr. Idle, also of the Chicago Priorities Field Service Branch.

The remainder of the conference was devoted to the lithographic clinic and quiz, looked forward to as the outstanding feature of the day. Russell L. Miles served as moderator during the clinic session. Daniel C. Donaldson, graphic arts demonstrator, Eastman Kodak Co., Chicago, spoke on "Lithographic Emulsions" and following his talk answered questions from the floor. This was the procedure followed by each of the speakers. They included Gus  
(Turn to page 75)

## KEEP 'EM ROLLING

### PRODUCTION SCHEDULE

[illegible]

# job control

## IN PLANT MANAGEMENT

**By Rex G. Howard\***

**Peoria Blueprint & Photopress Co.**

**P**LANT production, its planning and control, is without doubt the basic problem of plant management. To determine the basic underlying causes of most production problems, we must examine the primary elements that go into production. We must go to the individual jobs going through the plant, the completion of which in the aggregate, we consider as plant production.

The initial task of management is to thoroughly organize the elements that go into each individual job, coordinate these individual jobs with relation to personnel, facilities and available time and then maintain constant control over them. Analysis of most delays, errors, lost time, mis-

understandings, and other bugaboos that throw a monkey wrench into the gears of production will show that after those troubles due to sheer incompetence or inexperience have been eliminated, most of our difficulties can be laid at the door of management.

Imagine the confusion that would result if all the trains from a large

railroad terminal were allowed to leave as they pleased, travel as fast or as slow as they pleased, get sidetracked when they pleased, arrive when best they could and in the meantime nobody knew just where they were. They might all eventually reach their destination, but the resulting chaos, wrecks and delays would soon ruin a railroad. A

***A definite schedule for keeping lithographic production rolling from art, through camera, film, plate, press and bindery departments, to shipping.***

\*Delivered before Mid-Western Regional Conference of the National Association of Photo-Lithographers, Chicago, Jan. 24.



ART LAYOUT TICKET			
For <u>Northern Steel and Stoker Co</u>		Layout No. <u>29</u>	
Address <u>Peoria Ill</u>		Date <u>11-2-41</u>	
Salesman <u>Lyke</u>		Del. Date <u>11-4-41</u>	
Description <u>1942 Stoker Sales Manual</u>			
Body Stock <u>Fine Art Offset 70# white linen</u>			
16 Pages Size <u>8 1/2 x 11</u>		2 Sheets Size <u>17 x 22</u>	
Cover Stock <u>Hammermill Cover 65# white ripple</u>			
1 Sheet size <u>11 x 17</u>		Binding <u>Saddle stitch</u>	
Folding <u>8 1/2 x 11 binding on 11" side</u>			
Approx. Layout Time to be spent <u>(6)</u> hours			
<input checked="" type="checkbox"/> Rough <u>12 pp</u>		<input checked="" type="checkbox"/> Comprehensive <u>Covers + 4 pp</u>	
Colors Cover <u>Green + black</u>		Colors Body <u>Green + black</u>	
Use of Color <u>Decorative and solid colors in stokers</u>			
Hand Lettering <u>Cover only</u>		Paste-up	
Illustrations <u>none</u>		Duotones <u>front + back cover</u>	
Retouching <u>extra</u>		Process Color <u>none</u>	
Photographs <u>(32)</u>		Composition <u>son serif</u>	
Special Cut outs, etc.			
Remarks <u>Sketch photos for cover design attached hereto</u> <u>select one suitable</u>			
FOR ESTIMATOR			
Actual Layout Time <u>5 1/2</u> hrs.			
Quoted Comp. Cost <u>\$27.50</u>		by <u>Acme Typesetting</u>	
Approx. finished art time <u>25</u> hrs.			
Approx. finished Paste-up time <u>15</u> hrs.			
Layout finished <u>11-5-41</u>		by <u>H. Kinne</u>	
Use other side for rough layout suggestion.			

counterpart of just such a confused situation can be found in many plants and the job control routine and paper work set up in this article presents just one approach to this problem. It is presented in the hope that certain portions of the procedure may be of some assistance to others with similar production problems. Let us, therefore, follow a typical job through the plant following job control procedure.

#### Prospective Work and Estimating

THIS job is conceived by a creative salesman who believes his customer needs a sales manual for his new 1942 line of equipment and is quite sure after talking to the customer that the right layout would

sell the job. After a conference with the management, it is decided to make the prospective layout but the amount of art, time, etc., that can be spent on this prospective must be controlled. For this purpose, an Art

**Mr. Howard's Job Control Plan has been re-printed by the National Association of Photo-Lithographers in pamphlet form for distribution to its members. We are indebted to that organization for permission to publish the Plan in full here.**

Department Layout Ticket, (Form No. 1), is made.

The artist is given the photos and other pertinent material and he is allowed a maximum of six hours for this particular layout. He gets an estimate from the compositors on all type-setting and estimates his own time for completion of the finished art work and paste-up. These facts are necessary for the estimator who now proceeds to make out his Estimate, (Form No. 2).

Needless to say, too much care can not be taken in preparing this very important phase of the job. Cost of all the items on this estimate covering both materials and operations must be fixed to a large degree or controllable. If too large an allowance is made for so-called "uncontrollables" the job may be lost to competition. We know approximate art time required, and the composition cost. These elements must from now on be controlled by the art director who knows the limitations, having made them himself, and must stay within them. By so doing, a control is placed on the job until it leaves the Art Department.

The cost of line negatives, half-tones, stripping, plates, etc., are based on the artist's layout and all deviations from that layout involving reverses, screen tints, outlined backgrounds, hand lettering, retouching, special reductions or enlargements involving additional cost must be controlled by the art director to hold within his estimate. This is one of the most important phases of the job control. Changes made by the customer are extras, and listed as such on Shop Ticket. These will be billed as extras, and the customer is so advised.

The first items on the Estimate sheet, (Form No. 2), represent all the fixed costs whether the job runs 100 or 100,000. The quantity variables are listed in the lower columns, with the sales commission listed last. If we do not have the stock in our stock room, especially in these uncertain times, we should find out whether the stock in the size, weight, and finish is available and the prevailing price before we estimate our



Date 11-5-41 ESTIMATE Salesman Lyle

For Northern Steel and Stoker Co.

Bill To above

Description of Job Sales Manual

2 sheets size 17x22 16 pages size 8 1/2 x 11 one side ☐ two sides ☒

Body Stock Hammermill Offset color white wgt. 70 finish luster

Press size 17 1/2 x 22 1/2 required 10,000 Stock size 35 x 45 required 2,500

Cover stock Hammermill color white wgt. 65 finish ripple

Press size 17 1/2 x 22 1/2 required 2,500 Stock size 22 x 35 required 1,250

Ink body Black + green Ink cover Black + green

Quantities	5,000	10,000	20,000
Composition	35.00		
25M Art Work	4.50		
15M Pasteup	2.00		
10 Negatives	3.00		
32 Half Tones	6.75		
8M Stripping - Outlining	2.00		
5 Black Plates	3.00		
5 Color Plates	3.00		
Color Wash ups	5.00		
1 Stock photo	15.00		
<b>Total</b>	<b>325.00</b>	<b>325.00</b>	<b>325.00</b>

	5,000	10,000	20,000
250 Ink	18.00		
400 Cover Stock	45.00	90.00	170.00
600 Body Stock	84.00	162.00	300.00
40M Press Imp. Copy	10.00	18.00	32.00
10M Press Imp. Cover	25.00	45.00	80.00
15M Folding	15.00	24.00	36.00
10M Gathering	7.50	15.00	30.00
Stitching	5.00	10.00	20.00
Trimming	15.00	25.00	40.00
Padding			
Numbering			
Punching			
Perforating			
Packing - Delivery	5.00	9.00	17.00
<b>Total</b>	<b>626.50</b>	<b>885.00</b>	<b>1,338.00</b>
S.C.	62.00	88.00	132.00
Quoted	688.50	973.00	1,470.00

Rating OK SHOP TICKET Job No. A 778

Customer Northern Steel & Stoker Co. Date 11-10-41

Address Peoria, Ill. Delivery 12-15-41

Order No. 2261

Price 2 H.T. pp 7x11

Sold By Lyle Sales Commission Black & photo

Copy Charge pp 9x18

(500 overrun)

DESCRIPTION Stoker Sales Manual

Quantity 10,000

16 Pages Size 8 1/2 x 11 2 Sheets Size 17 x 22 One Side ☐ Two Sides ☒

Body Stock Hammermill Offset Weight 70 Color white Finish luster

Press Sheet Size 17 1/2 x 22 1/2 Required 10,000 Stock Size 35 x 45 Required 2,500

Cover Stock Hammermill Weight 65 Color white Finish ripple

Press Sheet Size 17 1/2 x 22 1/2 Required 2,500 Stock Size 22 x 35 Required 1,250

Stock Order ☐ From ☐

Special Instructions

ART DEPARTMENT

Art Work Plate up. Overlay design for color. Sketched on pp 7. Hand letter three heads.

Retouching As customer requires - charged for extra

Composition Same as copy Typing Photo Type - Hand

Special Instructions Solid color on photos, no highlighting.

CAMERA - PLATE MAKING

8 Line Neg. Film ☒ Trans ☐ Size 18 x 24

2 Line Neg. Film ☐ Trans ☐ Size 18 x 24

32 H.T. Neg. (6 groups of reductions)

Contacts 8x DuPont cover

Black Plates Size 4 x 8

5 Black Plates Size 4 x 8

5 Color Plates Size 4 x 8

Special Instructions

PRESS

Press Impressions Body 20M Ink Black - Green Work and Turn ☐ Work and Roll ☐

Press Impressions Cover 20M Ink " Work and Turn ☐ Work and Roll ☐

Special Instructions Match green sample on envelope

BINDERY

Cutting None Finishing None

Padding None Gathering 3 rings

Punching None Trimming 18 x 11

Stitching 2 wire Wrapping 25 lb. phz

Perforating None Special Instructions Post on cover

Round Cornering None

Originals to be Returned ☒

Date	Via	Quantity	Packed By	Shipping Instructions
12-13	Truck	2,000	WJE	When truck will call.
12-15	"	5,000	ARK	Phone when ready.

3 8 1/2" X 11", Ivory

PEORIA BLUEPRINT & PHOTOPRESS CO.

219 N. WASHINGTON ST. PEORIA, ILLINOIS

To Northern Steel & Stoker Co. No. 413

Peoria, Illinois Date Nov. 6, 1941

GENTLEMEN:

We are pleased to submit herewith our formal quotation in response to your inquiry of \_\_\_\_\_

Sales Manuals consisting of 16 pages and cover. Body lithographed in green and black on 70# Fine Art White Special Finish Offset. Cover lithographed in green and black on 65# Ripple White Hammermill Cover. Price includes all layout, artwork, composition and 32 halftones as per layout submitted Nov. 4, 1941.

Color to appear in Stokers as flat color. No highlighting. Duotone on front cover from stock photo, cost of which is included. Saddle stitched, banded full width and packed in cases.

5,000	\$ 680.00
10,000	\$ 973.00
20,000	\$ 1,470.00

All retouching to be an extra charge. Cost to be figured at \$3.00 per hour.

Delivery to be made December 15, 1941.

2% - 10 days  
30 days - Net

Shipping to be favored with your valued order for the above, we are

Respectfully

PEORIA BLUE PRINT AND PHOTOPRESS CO.

By R.A. Howard

BLUE PRINTING—PHOTO COPYING—PLANOGRAPHING—DRAFTING SUPPLIES

4 8 1/2" X 11", White

JOB REQUISITION DATE IN 1-10-42

DELIVERY DATE 1-15-42

For Soldwedel Dairy Peoria, Ill.

Bill to \_\_\_\_\_

Description of job 500 Vitamin D Milk Poster

pages size x 1 sheets size 13 1/2 x 20 1/2 one side ☒ two sides ☐

Body stock litho coated color white wgt. 70 finish C.I.S.

Press size 21 x 28 required 250 Stock size 28 x 42 required 125

Cover stock \_\_\_\_\_ color \_\_\_\_\_ wgt. \_\_\_\_\_ finish \_\_\_\_\_

Press size x required \_\_\_\_\_ Stock size x required \_\_\_\_\_

Ink body Black - Yellow Black plates 1 - Gumming

Ink cover \_\_\_\_\_ Color plates 1 - Tinning

Typing \_\_\_\_\_ Color Washups \_\_\_\_\_ Mounting

Composition None Numbering \_\_\_\_\_ Ensls \_\_\_\_\_

Art work None Punching \_\_\_\_\_ Packing 100's

Pasteup None Perforating \_\_\_\_\_ Ship Via Train

Line Neg. 14 x 22 Gathering \_\_\_\_\_ BILLING SE.MT

Half tones \_\_\_\_\_ Stitching \_\_\_\_\_ S. C. H.MT

Stripping-Outlining \_\_\_\_\_ Trimming \_\_\_\_\_ C.O.D. ☐ Charge ☐

Color separation \_\_\_\_\_ Padding \_\_\_\_\_

SPECIAL INSTRUCTIONS: Full proofs from 7 x 10 copper 2-color plates. Make line shot enlargements. Pick up plates + proofs from Peoria Engineering Co.

SALESMAN Lyle H. ACCEPTED CUSTOMER ARK

7 8 1/2" X 11", Blue

JOB SCHEDULE SHEET DATE 1-19-62

NO.	DESCRIPTION	QUANTITY	UNIT	DATE	TIME	STATUS
2	Midwest Catalog	300	75	1-20		
3	Parma Viny & Marsh	300	75	1-20		
4	Abstract Co. & DA JARRISON GARR	100	75	1-20		
5	Out. Ill. Light	100	75	1-20		
6	754	100	75	1-20		
7	756	100	75	1-20		
1	796	100	75	1-20		
8	777 Kelly Seed Catalog Sig. 1	250	75	1-20		
1	726 Safety Cycle Club (Books)	100	75	1-20		
2	728 One Thomas City Book	100	75	1-20		
3	777 Kelly Seed Catalog Sig. 2	250	75	1-20		
5	785 Waco Ador. Subully Job	100	75	1-20		
2	791 Aldrich Journal	100	75	1-20		
3	766 Williams Ad. O. Weston	100	75	1-20		
4	799 Borgella Form 320	100	75	1-20		
4	783 Parma Blue Envelopes 10 1/2 x 5 1/2	100	75	1-20		
1	800 Midwest Model 46	100	75	1-20		
7	780 Abingdon Pottery	100	75	1-20		
8	803 Jefferson Hotel	100	75	1-20		

stock costs. The same thing applies to the cost and availability of certain inks. Our estimate must be essentially built on facts as nearly as possible if we are to give the customer the most for his money and still make a reasonable profit. Since the Formal Quotation is made directly from this estimate all the necessary information should appear thereon and all items should be carefully checked and double checked.

The Formal Quotation, (Form No. 3), should embrace all the information appearing on the estimate sheet and be carefully checked to see that everything is thoroughly and specifically set forth, thus precluding any later difficulty with the customer. Too often the quotation is too general in its presentation, neglecting the setting forth of the specific inks, papers, bindery operations, delivery, terms, etc., that are a definite part of the estimate and the subsequent misunderstandings with the customer, if any, usually can be attributed to this neglect. The duplicate Quotation is attached to the Estimate sheet and filed until the order comes in.

#### The Shop Ticket

HAVING been given the order by the customer, the next step is the making of the Shop Ticket, (Form No. 5). Let us not minimize the

8 4 1/2" X 10", Cherry, Salmon, Canary, Green

STOCK ORDERED ☒ RERUN ☐ EXTRA RUSH ☐ JOB NO. 798

JOB NAME Northern Steel & Stoker Sales Manual

DATE IN 11-10 DELIVERY DATE 12-15

QUANTITY 20 M NO. OF COLORS 2

ART ARTIST Kaine TO BE COMPLETED 11-18

ALL MATERIAL IN? ☒ NO? ☐ TO BE IN ☐

COMP. OUT ☒ 11-15 IN ☒ 11-18 HALFTONES SHOT? ☒

PASTE UP OUT ☒ 11-20 IN ☒ 11-21 PASTE UP OK ☒

APPROX. HOURS TO GO 7 ART OK'ED BY Hulva

REMARKS Retouched 7 photos

CAMERA CAMERAMAN Wells TO BE COMPLETED 11-20

NO. OF LINE SHOTS 16 NO. OF HALFTONES 36

APPROX. HOURS TO GO 7 FILM ON HAND 2

REMARKS Reshot 2 H.T. wrong sizing

FILM DEPT. FILM ARTIST Gene TO BE COMPLETED 11-22

NO. OF HOURS TO GO 2 WILL BE COMPLETE ☐

BLUE LINE OUT ☒ 11-22 IN ☒ 11-23 BLUE LINE OK'ED ☒

FILM OK'ED BY Stripped in copy change page 9 & 10 REMARKS

PLATE PLATEMAKER Jim TO BE COMPLETED 11-24

NO. OF PLATES 10 PLATES FINISHED ☒ PLATES ON HAND

DEEP ETCH ☐ ALBUMEN ☒ REMARKS

PRESS PRESSMAN Bill & Ed PRESS NO. 1-2

COLOR ☐ RED ☐ YELLOW ☐ BLUE ☒ GREEN ☐ VARNISH ☐ BLACK ☒ OTHER ☐

KEYED 11-25 WILL BE COMPLETE 12-5 TO BE COMPLETED 12-5

IMP. BLACK 50.000 IMP. COLOR 50.000

BLACK RUN 20M 11-25 Bill COLOR RUN 20.000 11-28 Ed

20M 11-26 Bill 20.000 12-2 Ed

10.300 11-27 Bill 10.300 12-5 Ed

BLACK FINISHED ☒ OLD PLATE R. G. ☐ COLOR FINISHED ☒

REMARKS 300 over

BINDERY BINDERY WORKER Ells TO BE COMPLETED 12-10

TRIMMED ☐ PUNCHED ☐ GATHERED ☒ STITCHED ☒

TINNED ☐ PERFORATED ☐ MATERIALS ON HAND ☐

APPROX. HOURS TO GO 2 1/2 FOLDED ☒ NO. OF HOURS TO FOLD 10 1/2

REMARKS Had to return covers to fold properly

SHIPPING SHIPPER Gene DATE 12-13 MUST SHIP IF PARTIALLY SHIPPED

DATE SHIPPED 12-13 NO. 2000

BALANCE TO SHIP 12-15 8M HOW SHIPPED Truck

OUTSIDE BINDERY ☐ IN TOWN ☐ OUT OF TOWN ☐

SAMPLES TO AGENCY ☐ ORIGINALS RETURNED ☒

SAMPLES SAVED ☐ REMARKS 200 over

It is extremely important that all instructions be set forth clearly and that stock quantities, sizes, final trim sizes, color samples, bindery instructions, packing, shipping information be definite and concise. Billing price, sales commissions, etc., are entered only on the duplicate *Shop Ticket*, which remains in the *Office Control File*. A reference to the *Shop Ticket*, (Form No. 5), will give a general idea of the manner in which information should be entered. Be sure that no verbal agreements have been made that are *not* a part of the *Shop Ticket*. When a salesman brings in a job from a customer without a written estimate having been made up, we use an auxiliary form, *Job Requisition Form No. 4*. On this form, the salesman enters all instructions on the job and gives it, together with all copy, etc., to the person making out the *Shop Ticket*. This controls, to a large degree, misunderstandings and errors usually accompanying verbal instructions. This form, like the estimate sheet on other jobs, is

[illegible]

filed with the duplicate *Shop Ticket*  
in the *Office Control File*.

### Job Control Card

**T**HE *Job Control Card*, (Form No. 8), is made out at the same time as the *Shop Ticket* and is a vital essential in the control of the job. A different colored card is used for each week of the month. The job number, the name of the customer, date, quantity, colors and delivery date are entered on this card before it goes to the *Control Board*.

### Production Control Board

The *Control Board* (page 25) shows the job control cards in various Departmental Divisions indicating the

progress they have made in the production schedule. Each department indicates each night the work still to be completed in their department on the control cards. If the work on any jobs in their department has been completed, the control cards are moved immediately into the next departmental division on the *Control Board*.

Inasmuch as each job by the color of its control card indicates how old it is, "sleeping jobs" can be detected and moved along to completion. These control cards are moved across the *Control Board* as the jobs progress so that it is possible at a glance to see where every job in the plant is at any given time and determine its exact status.



DAILY TIME TICKET															
EMPLOYEE <i>William Mc Dowell</i>		CLOCK NO. <i>24</i>	DEPARTMENT <i>Dress</i>	SHIFT <i>Day</i>	DATE <i>11-27-41</i>	<input type="checkbox"/> MON <input type="checkbox"/> TUE <input checked="" type="checkbox"/> WED <input type="checkbox"/> THU <input type="checkbox"/> FRI <input type="checkbox"/> SAT <input type="checkbox"/> SUN									
CUSTOMER	JOB NUMBER	5	6	7	8	9	10	11	12	1	2	3	4	5	JOB UNITS
		10	20	30	40	50	60	70	80	90	100	110	120	130	REGULAR
<i>Northern Steel</i>	<i>A-798</i>	<i>10.300</i>	<i>Imps</i>												<i>20</i>
<i>Van Mfg Co.</i>	<i>A-708</i>	<i>1800</i>	<i>Imps</i>	<i>2 plates + 2 photo reds</i>											<i>23</i>
<i>Soldwedel</i>	<i>A-740</i>	<i>200</i>	<i>Imps</i>	<i>Work + Turn</i>											<i>3</i>
NON-PRODUCTIVE TIME															<i>2</i>
<div style="display: flex; justify-content: space-between;"> <div> <p>1. Speculative Sketch 2. Layout 3. Copy Writing 4. Typing Copy 5. Lettering - Drawing 6. Plate Up and Binding 7. Reproduction Comp 8. Art Brushing</p> </div> <div> <p>9. Interview Customer 10. Photo Art Work 11. Film Art Work 12. Line Film 13. Line Plate 14. H. T. Photo 15. Contact Prints</p> </div> <div> <p>16. Photostats 17. Paper Negatives 18. Photo Making 19. Make Ready 20. Making Ink 21. Washing 22. Retouching</p> </div> <div> <p>23. Loading 24. Cutting Block 25. Jogging 26. Block Handling 27. Plating H 28. Folding M 29. Proofing 30. Gathering</p> </div> <div> <p>31. Numbering 32. Packing 33. Inserting 34. Binding 35. Round Cornering 36. Clipping 37. Perforating</p> </div> <div> <p>38. Mounting 39. Trimming 40. Wrapping 41. Sealing 42. Shipping</p> </div> </div>															
<div style="display: flex; justify-content: space-between;"> <div> <p>REPRODUCTION DEPT. S.P. - Set in Photo O.S. - One Side V.S. - V. and P S.T. - Set and Tracings P.S. - For Photo P.S. - For Photo P.S. - For Photo</p> </div> <div> <p>NON-PRODUCTIVE TIME A. - Cleaning up B. - Mixing chemicals C. - Waiting on material, etc. D. - Out of shop E. - Writing job tickets F. - Writing job tickets G. - Writing job tickets</p> </div> <div> <p>NOTE Remains or hours shall be indicated by the prefix R in code number. For example: Remaking job, R-10; Remaking plate, R-20; Remaking job, R-20, etc.</p> </div> </div>															
<div style="display: flex; justify-content: space-between;"> <div> <p>Units <i>48</i> Hours <i>9</i> Total Hrs. <i>57</i></p> </div> </div>															

Form No. 12

The *Control Board* serves a still more important function in production control. A glance at the board will tell what departments are loaded, what departments are not busy, where to put emphasis to smooth out production, how to anticipate "bottle necks" and prevent them, where to anticipate hiring extra help and where to anticipate a lull in any department and make necessary adjustments to move work into these departments. Small colored seals are attached to the control cards to indicate work that can be ganged, special rush jobs, etc., so that they can be immediately recognized and available. Inasmuch as each person handling the job puts his name on the card, a record is kept of the job's complete production from the time it is designed until it is wrapped up and shipped. It is not only a means of production control, but a production record for subsequent reference.

Each morning, a man from each department lists on the *Daily Schedule Sheet*, (Form No. 7), all of the jobs that appear on the *Control Board* in his department. The superintendent checks the order in which these jobs are to be completed and keeps on his desk the carbon copies of these departmental schedules. This enables him to maintain control of priority on jobs in every department. Each department has its production controlled both as to jobs and to the sequence of jobs. This schedules the day's work for each department and

eliminates a great deal of supervisory time.

Production on a job may be temporarily stopped because of lack of copy, waiting on delivery of stock, customer holding up job, waiting for customer to return corrected paste-up proofs, etc. The production card is then taken from the active Production Board and placed in the Hold Section to the left of the board until it is again placed in production.

#### Stock Order and Requisitions

AT the time the *Shop Ticket* is made out, the *Stock Order*, (Form No. 11), is prepared. This stock order goes directly to the Stock Room where the stock man checks to see if stock is on hand or must be ordered. If stock has to be ordered, he makes out a *Requisition*, (Form No. 9), for stock and it goes to the front office where a purchase order is made out. The duplicate requisition and the *Stock Order* is kept in the stock room until the paper arrives. It is then checked and, if O. K., the duplicate requisition is so marked and sent to the front office to verify delivered quantities with the invoices from the paper company.

The small slip (upper left *Stock Order*, Form No. 11), which is perforated, is put in the stock pile on dollies ready for the press. The upper right portion goes into *Shop Ticket* while the bottom memorandum goes to the *Stock Control File*, (Form No. 10).

#### Daily Time Tickets

Each person keeps a *Daily Time Ticket* (Form No. 12). This record divided into 10-minute units is a record of each operation on the job and the exact time required for its completion. Provision is also made for recording non-productive time such as waiting on material, etc. Close inspection of these *Time Sheets* will disclose interesting facts concerning each craftsman's productive ability and offers a means of controlling lost, or non-productive time in every department. Regular time clock records are used for wage computation.

In the camera department the number of exposures made on each job is recorded on the *Time Ticket*. On this ticket, the platemaker indicates the number of plates; then the pressman records the number of press impressions for each job. In the case of bindery operations, the number of sheets punched, folded, gathered, and otherwise completed, is indicated for cost references.

The total units required for each operation are tabulated and production labor costs figured for each job. These labor costs as well as material costs, outside work and overhead, are entered on the back of the *Shop Ticket* (Form No. 13) and the profit or loss computed. The original estimate sheet, which is in the *Office Control File*, can be checked against the actual production cost on each

(Turn to page 67)





WAR-TIME

# shop strategy

BY MERLE S. SCHAFF\*

Dando-Schaff Printing & Publishing Co.

**T**HE consideration of a subject as broad as this would best be accomplished by having each of you submit one idea that you have found most helpful during the present emergency. However, that would consume much more than the short time allotted, so we must reverse the procedure and present to you ideas assembled for your consideration and adoption. If you are using these methods now, then you are far enough ahead to bear with our repetition while the rest of us catch up.

Our entire strategy is based on the cooperation and the versatility of

your personnel. We assume that you have selected your co-workers with an eye to their natural aptitude or bent. You are not going to have a myopic statistician retouch nega-

tives, but rather have selected a man or a woman who has good vision, a flair for neatness and has patience enough to do good work with a brush. This selection should be made

**Converting the litho plant  
from civilian to war economy  
with a minimum of disloca-  
tion, while maintaining em-  
ployee morale at its highest.**

\*Before the Mid-western Regional Conference of the National Association of Photo-Lithographers, Chicago, January 24.

for each type of work when you first employ the individual, and again when shifting him from one type of work to another. It can be based on a consideration of his family background, his schooling, his interest in chemistry, physics, art, mechanical drawing, or the progress he has made in a lithographic trade school. Performance tests can be had from any psychologist to give you a clue to his ability to carry out instructions.

Training in the plant is best accomplished by following his natural interests. Security of the senior employee's job must be established for the proper functioning of any senior-junior relationship. Occasional problems must be left up to the neophyte for his sole solution. And finally, the goal of having prepared a new employee to handle more than one job well, must be attained. Such versatility will help two ways: first, the shop trying to survive the personnel changes of a war crisis; and second, the employee trying to make himself more productive to the industry of his choice. For example, we can consider an employee to approach the ideal when you have a camera operator who can strip; a plate maker who can opaque; or an artist who can lay-up.

Incentive for the progress of the individual is provided, of course, by regular and worthwhile pay increases. During the emergency, management may find it necessary to choose, occasionally, between maintenance of personnel and maintenance of profit. Without personnel, no profit is possible; without profit, but with loyal personnel, survival is possible during the emergency. And in considering the causes of profit, remember there is no ceiling on lithographic selling prices. Meanwhile encourage suggestions. Your industry is still young, and a good suggestion, acted upon, may double your profit this year. On the subject of commendation and criticism, remember that the progress of an organization is the composite of the progress of its individuals. If criticism denotes retrogression in an individual, then praise should mark his progress, and since progress must outstrip retrogression, praise must

outweigh criticism. Appraise yourself in relation to each of your employees IF your criticism outweighs your praise, then either he is retarding the progress of the company, or you are discouraging his progress. Neither condition has a place in the present emergency. Cure them. Be generous in your commendation if it be deserved. Let it never be said of you that no news is the only good news you broadcast.

Competition of our lithographic industry for personnel with other industries, particularly war industries, temporarily more favored financially, can be controverted by reasoned thinking. The relative occupational stability of lithography is well known. That the fighting era will be superseded by an era of hard hitting economics is also conceded. Patriotism, today flaming high, must after victory be kept alive by hard work and steady employment. That nation endures which has the greater number of self-supporting, thrifty and thinking citizens.

If war's depletion removes an employee, as it will inevitably claim some, under the draft, send him away with confidence in the permanence of his job. It then becomes your patriotic duty to carry on by replacing him with another worker, that his job may be truly waiting for him upon his return. How to proceed is the next problem. Let us face the worst condition—total lack of any employable idle help. The temptation then comes to steal a competent employee from your worst competitor. Beware of this course—it can easily start a train of changes that spread like wild fire with a succession of pyramiding wage rates, and ultimate disastrous consequences to all involved. Rather, wherever possible, try to use women workers.

With adequate training, comparatively few jobs fall outside their scope, either physically or temperamentally. The adequacy of their training will depend upon how much you can anticipate the withdrawal of your male workers and how willingly they enter into the spirit of the emergency. The temporary nature of the work should be frankly emphasized—both the woman worker and the man

she replaces should realize that the termination of the war will restore the former balance of labor. This coincides with nature's pattern—a woman's ultimate ambition is usually aimed beyond the repetitive production of such inanimate lithographic intermediates as perfect press plates.

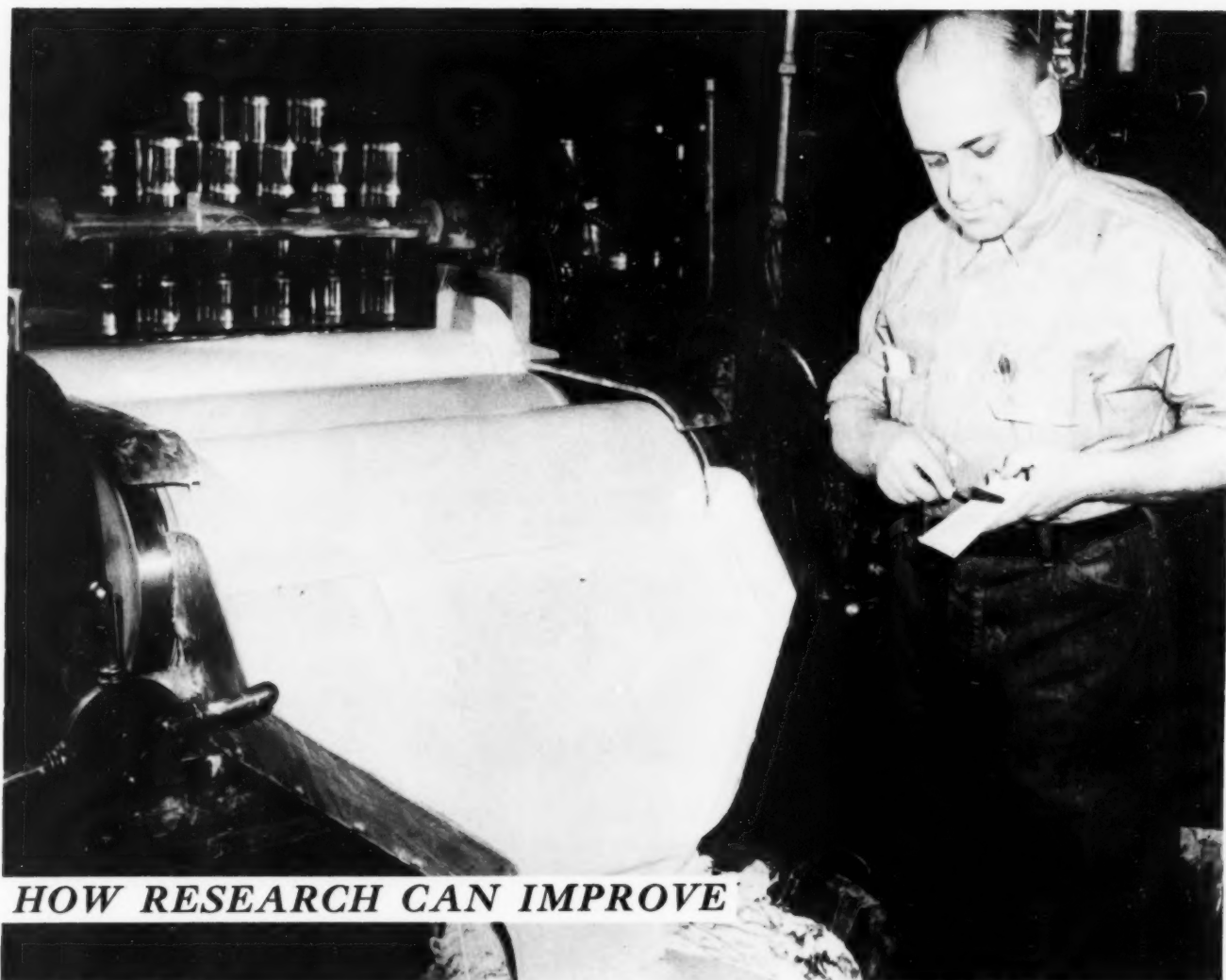
**T**HERE are social restrictions to be overcome. Hours of work laws, designed for totally different conditions, will have to be surmounted. That problem can be solved, differently of course, for each locality.

Now that we have explored somewhat the strategy of personnel, let us see what can be done for our equipment. First, comes the demand that we be modern, that we be abreast of the times. Of course, we cannot keep our machinery always new. Probably the average age of the equipment in the plants represented here is not less than 10 years. Consider yourself exceptionally fortunate if the average is less than five. But we can be modern in our knowledge of the newer machines made available since our plant was equipped, and in our adoption of the newer processes constantly being introduced. We can divide our maintenance effort between two groups of machines: "permanent," and "duration." Units in the "permanent" group, will comprise those machines in your plant that modern engineering has not made obsolete. Maintenance here should be of the best, designed for long life. "Duration" units, comprising those due for replacement at war's end, can be maintained accordingly.

Careful, regular inspection, plus recommendations of the individual machine operators, will frequently enable breakdowns to be anticipated. Parts may be ordered in and repairs made in idle time, instead of at penalty overtime rates in the midst of a rush job. Periodic, adequate and thorough lubrication, in accordance with engineered recommendations, pays big dividends.

As we operate Harris presses, we have recently checked with that manufacturer and find that they are

(Turn to page 65)



**HOW RESEARCH CAN IMPROVE**

# litho inks

**BY WILLIAM H. WOOD\***

Harris-Seybold-Potter Co.

**L**ITHOGRAPHY is still very much of a craft with its chemistry only partially understood, but it is rapidly progressing toward the status of a science. Both in the lithographic plants and in the manufacturing plants of those firms who supply lithographic inks, plates, papers, chemicals, blankets and rolls, we find an ever increasing apprecia-

tion of the importance of scientific control. If we, as press manufac-

turers, could have non-oxidizable plates, papers that would not pick

**Although the war has first claim on our industrial efforts, it is hoped that research laboratories will continue to function so that improved products and processes will be available after it is over.**

\*Before N. Y. Printing Ink Production Club, January 28, 1942.



or stick to blankets, blankets that would not soften or mash out, and inks of good color intensity that would dry fast and not scum, we would feel that we had practically reached the millennium of lithography.

There are good lithographic inks, passable lithographic inks and unsatisfactory lithographic inks. Frequently neither we nor the ink manufacturers know exactly why a given litho ink will fall into one of these classifications. Perhaps the ink maker has retained too much empirical knowledge from the art of making letterpress inks and has allowed this to influence him in the manufacture of litho inks. The question might be: "Are our inks too much like those of Senefelder's day?"

It is perhaps not too well understood that litho inks are subjected to chemical action which letterpress inks avoid. On the lithographic press during printing, a large number of chemical reactions take place, any one of which markedly affects the lithographic ink used in printing the job. For instance, there is the action of highly reactive plate metals such as zinc or aluminum on the pigments, varnishes and other components of the ink. At the same time there is the problem of a rather strongly acid fountain solution containing acids and acid salts being milled into the ink by the colloid mill action of the rolls. These actions are simultaneously taking place in the presence of emulsifiers such as gum arabic. Many inks contain wetting agents, added to facilitate the grinding and wetting of pigments, but which certainly assist in emulsification of the ink when it is run on the lithographic press. These chemical actions would be severe enough if all the lithographic inks were well nigh perfect which, of course, they are not.

An examination of the defects in any of the present-day lithographic inks would show that, in many instances, pigments are not light fast enough, and frequently pigments are too sensitive to the action of fountain acids and gums and far too reactive toward plate metals. Again, many inks contain very reactive extender

bases such as alumina hydrate, magnesium carbonate, zinc oxide and the like and it is these reactive materials which combine with the acids in the fountain solution to give us water receptive films which plate out on the metallic printing rolls subsequently leading to a bad stripping condition.

Wetting agents, as mentioned before, frequently result in bad emulsification, which in turn causes black inks to become gray and color inks to go off shade and become too dilute. Furthermore, our lithographic inks of today dry too slowly, making spraying imperative on many jobs. This is definitely an undesirable defect. From the practical pressman's point of view the following things give him trouble: colored inks which do not trap satisfactorily on multicolor presses; colors which do not lay well upon the sheet; black inks which tend to run gray; inks which liver and jell too easily when kept in storage for short times; inks which will not dry, especially under humid atmospheric conditions; inks which strip too readily on the steel press rolls, and inks which tend to pile on the blanket. A properly formulated ink probably would require no additional agents to be added at the time of using the ink, unless it would be an ink drier compound. But because pressmen find that inks frequently will not work at all without adding various other ingredients, we have that as a further complicating factor since the ink manufacturer often will have no idea what other ingredients were added and the printing condition may go from bad to worse.

One of the most frequent questions asked by practical lithographers is: "Why do our lithographic inks scum on the press?" Scum which is not caused by a defective plate is generally the result of adsorbed fatty acid accompanying the lithographic varnish or fatty acid developed during varnish manufacture. When the lithographic plate becomes sensitive or raw to a very slight degree through the influence of fountain solutions, plate etches or the action of paper, chemicals and ingredients, we get an immediate adsorption of a fatty acid

film which starts to pick up press ink from the rolls. Then, frequently, the film cannot be removed without damaging the printing image. This leads us to ask: "Why should lithographic inks be compounded with varnishes containing free fatty acids?"

These fatty acids, of course, do not influence the operation of a letterpress ink but they do cause a great deal of trouble in a lithographic ink. If they cannot be neutralized or avoided during the manufacture of a lithographic varnish, then we should try to discover a varnish or a drying medium which would not contain them. Possibly a medium somewhat similar to the unsaturated poly-esters of the maleic acid-glycol type could be utilized. Any free acid in such polymers would not be adsorbed by the plate and could not result in scumming. Possibly synthetic varnishes of the non-glycerol type could be utilized. A start in this direction is illustrated by the mannitan drying oils of the castor oil fatty acid-mannitol type. These particular varnishes have a light color and for a given viscosity will dry considerably faster than a linseed oil varnish of similar viscosity. There are available today a large number of poly-hydroxy compounds which should be suitable for the manufacture of varnishes having an enhanced drying speed.

**R**ESearch leading to or looking toward improved pigments and extender bases for lithographic inks is also urgently needed. Alumina hydrate has had long usage as an ink base or extender and yet few people realize that if alumina hydrate is omitted from a lithographic ink completely, even to the extent of avoiding it in the grinding of or manufacture of a lithographic pigment, we can prepare an ink which will not strip on the offset press. We have found that certain hydrous oxides of the zirconium class are improvements over alumina hydrate as extender bases or pigment bases. An even less reactive base having the desirable working qualities of alumina hydrate would be even better.

The lithographic printing ink industry also needs research in driers

(Turn to page 67)





Substitutions will be necessary in both methods and materials, but adjustments to a war-time economy can be made and will be made.

THE METAL LITHOGRAPHER

# meets the crisis

BY E. RONALD BYERS

R. M. Hollingshead Corp.

WE hear much today of priorities and the "preferred list" in most business and industries—there has been no escape. The can manufacturer and tin lithographer have felt the sting of shortages to no little extent. Naturally we are concerned mostly with the shrinkage in the supply of metals such as tin plate, zinc and aluminum plates. Of these three metals probably zinc and aluminum, which we use as a printing medium, are the

hardest to obtain. We can, of course, alleviate this shortage to some extent by more frequent grainings of infrequent repeat orders, and a little more care in handling, especially by clamping our plates to the press cylinder to prevent cracking.

While great success has been accomplished in some of our leading lithographic houses by the use of stainless steel plates as a printing medium, we cannot for the present look to this as a substitution, as this,

also, is a defense necessity. I do not feel that we should become disheartened over these facts, however, as our industry has always been resourceful in the past, and will arise to meet the occasion where substitutions are urgent.

As the shortage of tin plate in the past few months has given us all many moments of anxiety, it has not been due to shortage of raw materials or the rolling or processing by the mill, but the priority of its use in

defense items. Since the Pearl Harbor incident and our consequent entry in the war, we may look for greater curtailment of our tin plate supply, due to approximately one-third of our present source of raw tin, which comes from the Malaya Peninsula, being taken over by the Japanese. We may also look for our remaining supply of tin to be allocated to the necessities of the defense program.

It will be necessary for us, as the tin situation becomes more acute, to make broader use of black iron sheets. While its use for lithographic purposes in the past has been limited to signs mostly and some dry packages, I feel we will find a much broader use for it in the near future. As we cannot solder black iron without its being tinned, we are experimenting with other methods of sealing and strengthening the side seams so that we may further its use in the field of containers for holding liquids.

The substitution of black iron for cans where formerly tin plate was used, will present us with problems that will not be too difficult lithographically, but, however, will require some planning and discretion in its use. First, it may be necessary for us to find a drier warehouse if our present one is cold and damp, due to the danger of rusting readily. This type of plate will oxidize very easily in handling, therefore, great care must be taken in counting or fingering sheets, unless they are to be processed immediately.

With the exception of some containers holding food products, tin plate does not require a lacquer or enamel on the reverse side. This, in most instances, will be a necessity with the use of black iron. If we aim to receive the full benefit of the protective coating on the inside of the can, again we must use great care in handling in order to prevent scratches occurring with processing the decorative side of the sheet.

We may also find in our conversion to black iron that in our coating a little heavier film content, or a more concentrated color, may be necessary for a desired coverage.

For those who will be experiment-

#### PRINTING INKS AND NATIONAL DEFENSE

**M**ANY lithographers and printers have been asking what relationship there is between color—printing inks, pigments, dyestuffs—and national defense? Why is it that certain hues, reds, yellows, are being curtailed? What have colors to do with munitions and war materials? Here are some of the answers to these questions which, according to Herbert Kaufman, advertising manager, General Printing Ink Corp., have been compiled by the Color Research Laboratory of Eagle Printing Ink Co., division of GPI, New York:

The use of yellow will be affected because the great bulk of yellow printing inks are made from chromium ore, and the best sources for such ore are in Turkey, Africa and the Phillipines. Our own supplies are both limited and not always of best quality. Chromium is also a vital war material, used in the making of armor plate and stainless steel. Naturally, printing inks will be affected. And, incidentally, next to black, yellow is one of the largest tonnage items in ink manufacture.

Reds are hit because of naphthalene, a coal tar derivative which is employed in the manufacture of practically every red pigment or dyestuff of any importance. Naphthalene is required in the process of manufacturing smokeless powder and for military coatings and marine paints.

Metallic pigments, made from aluminum, copper, brass, are scarce for obvious reasons. Titanium pigments, once imported chiefly from India and Norway, must now be developed from sources in this country.

Zinc, used to make white and certain organic colors, has largely been taken up by government priorities.

Perhaps the most vital of all war chemicals is nitric acid (and ammonia). This chemical is important in the manufacture of practically all organic pigments. Yet nitric acid also is essential for gun powder and explosives of all sorts. Naturally the defense program will plan on increased production, but for the present nitric acid and ammonia are scarce.

Phthalic anhydride, used for synthetic varnishes, is now required in incredible amounts for smokeless powder.

Aniline, a coal tar product, and the basis of many colors, must be reserved in great volume for military dyestuffs, coatings and explosives.

Chlorine, an important component of many colors used by the printing ink manufacturer, is now needed to bleach cellulose for smokeless powder and to make high-test aviation gasoline.

Formaldehyde, an essential ingredient of synthetic resin used in large quantities in printing inks, must now go into explosives and plastics and special coatings for military uses.

ing or lithographing black iron for the first time, it may be well to check the register on a few sheets to determine whether or not you have sufficient tension on your side gauge and especially your back pushers. We have found that some types of metal finishes have a tendency to retard a sheet as it is being fed into the press and, therefore, requires a heavier spring.

I feel that if it becomes necessary to replace tin plate with black iron on an "all-out" measure, we will find many uses for it that were never considered or attempted in the past,

and it may prove a great asset in the future to the industry.

**M**ANY of our lacquers, enamels and finishes are being rationed or unattainable, but, through their necessity and the resourcefulness of our laboratories, we are receiving substitutions that may in many cases become permanent. Gum arabic, albumin and many of our other platemaking and photographic chemicals, are becoming difficult to obtain, and will become more difficult. Therefore, carefulness and keen judgment

(Turn to page 77)

# AS CANNERS MEET...

## Label manufacturers and tin decorators are given convention's-eye view of their market picture for 1942.

BY H. H. SLAWSON

**G**OOD news for label manufacturers came out of the 35th annual convention of the National Canners Association in Chicago January 25 to 30. Because of the huge Federal program calling for tremendously increased production of canning crops there will be a correspondingly increased demand for labels for the containers. Shortage of tin for manufacture of cans which is causing many canners to shift to glass jars, has created another demand for production of labels newly designed for adaptation to the new containers. Still a third element in the optimistic prospect for increased label manufacturing business is found in the descriptive labeling drive which the Canners Association is promoting to encourage increased consumer acceptance of the industry's products.

For the metal lithographer there is likewise the definite certainty of business in providing tin containers for army field rations, along with newly developed metal containers for such things as blood plasma and sterile water for front line dressing station use; potable water for use in submarines and stratosphere planes; lubricating oil for guns and other war engines; and innumerable other new military and naval purposes.

One other factor which is going to keep lithographic presses running is, paradoxically, the shortage of many colored inks. Several lithographers present at the convention reported this is causing a general re-designing of labels for their customers, so that such supplies as are

available can be effectively utilized.

John L. Baxter, adviser on canned foods in the Food Supply Branch of the War Production Board, outlined before the convention the increased agricultural production program which presages increased demand for labels. Goals set for the 1942 canned foods packs, as determined by the Department of Agriculture, call for:

- (1) 40,000,000 cases of canned tomatoes, an increase of over 1/3 from the 1941 pack of 29,000,000 cases;
- (2) 38,000,000 cases of canned peas, or about 40 per cent more than the 27,000,000 cases packed in 1941;
- (3) 12,500,000 cases of snap beans, closely approximating the previous year's output;
- (4) 24,000,000 cases of canned corn, which is some 2,000,000 cases below last year's record-breaking pack of which a carryover remains.

The fruit pack of apples, peaches, pineapples, etc., will be 4,000,000 cases above last year's figure, it is estimated, and there will be large

increases in asparagus, lima beans and other items.

Deliberations of the food processors centered almost entirely on how to provide what is asked of them despite shortages of tin, sugar, labor and other factors. Label problems of the canners, however, were not overlooked. In an especially assigned conference room, Happer Payne of the Association's headquarters staff, was kept continuously busy explaining the descriptive labeling program. Following his appointment a year ago to head up the organization's labeling work, Mr. Payne arranged a consumer survey to obtain consumers' views on what to carry on the ideal label. From results of this survey a bulletin of immense importance to label manufacturers was prepared, containing specifications for construction of a satisfactory label. This was supplemented by data sheets with complete details for fourteen different products, and last fall another pamphlet, entitled "Canned Food Labels That Meet Consumer Needs" was published.

The Association's Labeling Com-



mittee, Mr. Payne explained, believes that the canned food label should be distinctive and individual in color and design and should afford the consumer truthful information regarding the product it describes. To comply with Federal statutes and regulations it must carry conspicuously and legibly, certain information. The committee recommends, also, the addition of other data. The value of a brand name and the need for its use is emphasized and use of a vignette truthfully depicting the can's contents is strongly urged. This, Mr. Payne declared, is one of the strongest elements of descriptive labeling. Recommended and urged, also, is the use of uniform descriptive terms.

Six lithographing firms occupied booths at the exposition of the Canning Machinery and Supplies Association in the Stevens Hotel. They were: Calvert Lithographing Co., Detroit, Mich.; Gamse Lithographing Co., Inc., Baltimore, Md.; Michigan Lithographing Co., Grand Rapids, Mich.; Outserts, Inc., New York, N. Y.; Progress Lithographing Co., Cincinnati, O.; United States Printing & Lithographing Co., Cincinnati, O.

Also present in private rooms at the Stevens Hotel were the following lithographers: Lehmann Printing & Lithographing Co., San Francisco, Cal.; Crocker-Union, San Francisco, Cal.; National Color Printing Co., Baltimore, Md.; Piedmont Label Co., Bedford, Va.; Schmidt Lithograph Co., San Francisco, Cal.; Stecher-Traung Lithograph Corp., Rochester, N. Y.

At the Congress Hotel, Rossotti Lithographing Co., North Bergen, N. J., maintained headquarters and Fort Dearborn Lithograph Co., of Chicago, had extra sales quarters at the Drake.

**M**ETAL lithographers or makers of lithographed metal closures exhibiting or maintaining conference rooms included: American Can Co., Anchor-Hocking Glass Corp., Casper Tin Plate Co., Continental Can Co., Crown Can Co., Crown Cap and Seal Co., National Can Corp., Owens-Illinois Glass Co., Heekin

Can Co., Phelps Can Co., Phillips Can Co., Western Can Co., White Cap Co.

Fuchs & Lang Mfg. Co., ink makers, held open house for their customers and friends at the Congress. Ault & Wiborg Corp., division of IPI, was at the Stevens and Harris-Seybold-Potter Co.'s Cleveland representatives were at the Maryland. The Label Manufacturers National Association was also represented in the convention crowds by its executive secretary, Charles R. Cosby.

United States Printing and Lithographing Co., had a newly designed booth for presentation of its "Eye-Petized" recipe labels, which combine natural color pictures of the product on the can's front panel and suggestive recipes or other culinary information on the usually neglected back panel. J. S. Bond, Chicago division manager, pointed out that food manufacturers spend millions of dollars for magazine space to win consumer acceptance and that by properly utilizing space on the labels this objective can be further intensified without extra cost. U. S. Printing & Litho's label designers have developed five different ways for using the neglected back panel, he said. A series of ten different labels, newly designed for a corn beef hash product were shown to illustrate possibilities. President J. P. Thomas of the company assisted the Chicago staff and in attendance also were plant managers from Brooklyn, Baltimore, Cincinnati and St. Charles, Ill.

Gamse Lithographing Co., Inc., Baltimore, Md., staged its traditionally striking display of creative label designs and fine color work to emphasize progress in label production. Herman Gamse, president, and William A. Gissel, sales manager, were in charge. While the supply lasted visitors were given copies of a patriotic calendar which the company is using as a promotional piece.

Calvert Lithographing Co., Detroit, featured its studies of pleasing color combinations for label designs in a booth constructed to represent the well stocked shelves of a typical food store. An enlarged and animated sample book was used to dis-

play new vignettes and attention was drawn to the booth by the emphatically enlarged "V" (for Victory) in the sign bearing the company's name. Frank Barnard, general sales manager, was down from Detroit to assist H. B. Hunter, Chicago sales manager.

Michigan Lithographing Co., Grand Rapids, Mich., had a well planned display of its "Colorcraft" food pictorials, emphasizing direct natural color reproduction of foods for the label. J. H. Eleveld, Jr., substituted as host for his father, J. H. Eleveld, Sr., whose time was fully occupied with duties as president of the Canning Machinery & Supplies Association. This post he has held for two years but was allowed to retire this year to an ex-officio membership on the Board of Directors.

Progress Lithographing Co., Cincinnati, maintained a pleasantly furnished booth where customers and friends might relax while discussing labels and display matters. Charles Klein, sales manager, headed the staff of four assistants, who received visitors.

Outserts, Inc., New York City, presented an impressive display showing representative examples of the use nationally-known food processors are making of their promotional novelties. Robert R. Brown, president, was assisted by E. L. Otto, Chicago representative.

American Can Company's display of new metal containers for a variety of war purposes drew a continuous crowd of spectators and emphasized the constant effort American Can is making to provide new products to meet new demands. Because of the destructive hazards which paper labels face, metal lithographing is imperative for these newly designed products, it was pointed out.

Schmidt Lithograph Co., San Francisco, maintained a large display of can labels and fiber board cartons for food packing. Company representatives were also exploring the possibilities for production of posters and other material that will eventually be required in civilian defense programs. A preliminary ear card

(Turn to page 63)





# Washington Letter

By Jay A. Bonvitz

**M**AJOR emphasis of the Printing and Publishing Branch of the War Production Board will be to require lithographers to stretch out the available supply of materials over as long a period as possible.

Up to the present, according to these sources, the industry has not felt severe dislocations, and while it is believed that in view of the nature of the industry, undue hardships can be avoided, the very nature of a war economy will impose considerable restrictions on lithographers.

Prior to the outbreak of war in the Pacific, the accelerating pace of the defense program had created a sellers' market as the result of threatened shortages in many materials. However, with the present situation in the Far East cutting off supplies of many vital materials, a controlled market is in prospect, and this will have a direct bearing on the availability of certain materials to the lithographic industry.

Before any concrete steps can be taken to make provisions for the materials requirements of the industry, the War Production Board must be informed on the quantities of materials used by the industry in the past. Consequently, the Printing and Publishing Branch of the Board is undertaking a survey of the industry's consumption of materials in 1941.

On the basis of this information, some program of allocating materials to the industry can be evolved, subject to war developments and the consequent possibility of obtaining required materials that originate in the war zones.

It cannot be said too strongly that business as usual is no longer possible. However, it is the belief of War Production Board officials in charge of the industry's problems that severe dislocations can be averted.

John M. Wolff, president of the Wolff Printing Co., of St. Louis, Mo., who has been named principal industrial specialist of the lithographic process products section of the Printing and Publishing Branch, gave this assurance to the industry:

"It is our thought that with proper conservation and the cooperation of the industry, it will be able to operate with a fair degree of production."

The principal problem of conservation will be in the field of inks, since many of the materials entering into the production of inks, particularly colored inks, are vital to the war effort.

Specifically, lithographers are advised by Mr. Wolff to conserve materials by three approaches—(1) to eliminate the use of large amounts of solids and reverse coverages, (2) to use lighter weight paper wherever possible, and (3) to exercise the maximum amount of efficiency in

handling of all materials and supplies.

Conservation problems are now under study by the Printing and Publishing Branch and its Industry Advisory Committee, in conjunction with ink manufacturers, national advertisers and other users of colored inks, with the Bureau of Industrial Conservation of the War Production Board giving full cooperation to the study.

While there will obviously be some changes in the uses of inks, the use of substitutes will come gradually, and there will not be undue dislocation. It is indicated that coincident with the tapering off of some raw materials, there is bound to be a tapering off in sales, and one will balance the other.

Among the effects of the scarcity of some materials, it is possible that inks will lose some of their gloss. However, it is expected that the supply of black ink will be sufficient to meet requirements.

In addition to the ink problem, the Printing and Publishing Branch has under consideration various suggestions as to proposed methods for unfreezing large quantities of copper, lead, tin, antimony, brass, aluminum and zinc which are now in the form of obsolete engravings, printing plates and dies held in printing plants.

While problems of the availability of various materials vital to the lithographic industry will become

apparent from time to time, the big problem immediately facing the industry is the question of transportation.

The heavy demands of the war industries for freight space is likely to pinch off many branches of civilian industry from obtaining space for the delivery and shipment of their materials. While the railroads are undertaking a large expansion program, much of the additional freight space which will be made available will go for war transportation needs.

The transportation problem is further complicated by the stoppage of production of light trucks, and the diversion of heavy truck production to war needs.

**E**XPANSION of facilities and new presses are practically ruled out by the demands for materials by the war effort. However, in line with the policy of the war planners to keep the plants of the nation in a good state of repair, an A-10 priority rating is granted to the graphic arts industry to obtain maintenance and repair materials.

P-100, the general repair and maintenance order, permits 110 per cent of 1940 rate of usage and deliveries and 110 per cent of December 31, 1940 inventories, based on aggregate dollar volume. In cases where operations exceed this rate, establishments requiring additional materials must obtain specific authorization from the War Production Board.

Because of the many uses by the lithographic industry of materials which are vital to the war effort, a survey of orders affecting these materials is of value to the industry.

Rubber—use of crude rubber by the printing and publishing industry is limited each month, beginning February 1, to 80 per cent of the average monthly consumption during the 12 months ended March 31, 1941. Mentioned in the order are printers' rollers, engraving and printing plates, offset blankets, cutting rubbers and suction cups for printers' equipment.

Chlorine—sharp restrictions on use of chlorine for bleaching paper pulps; chlorine available beyond

military needs is allocated from month to month. Brightness and color of papers will be progressively degraded, and no nearby relief is likely.

Cellophane—some uses in lithographic industry will be eliminated, such as covers for booklets.

Aluminum—direct military consumption will probably require the entire supply for next year, both the primary and secondary metal. New lithographic press plates can be purchased for direct war effort only. Toll agreements whereby used plates are exchanged for new or metal reclaimed and processed permitted only by special arrangement. Aluminum foil prohibited from future use. Possibility that stocks of powder and roll leaf might be requisitioned should be considered.

The aluminum order, issued January 27, prohibits the use of aluminum in any manufacture except on war contracts and a few specified items. Substitutes will have to be used for alumina hydrates.

Magnesium—all supply is subject to allocation.

Borax—no particular shortages foreseen.

Zinc—restrictions on prime metal are tight. Lithographers may have to expand toll arrangements to obtain required press and original metal plates, and pigment and ink makers have felt the pinch on this item in production of cadmium reds, zinc oxide, zinc sulphide, oleates and naphthenates.

Chromium—under strict allocation. Forty per cent of total supply formerly came from the Philippines.

Formaldehyde—new manufacturing methods recently developed point to possible lifting of some of the restrictions on this item, with the possibility that lithographers may not be curtailed in its use as preservative in gum arabic solutions.

Tungsten—increased restrictions likely. Substitution of molybdenum wherever possible is suggested.

In summary, while most of the materials used by the industry are under one kind of control or another, the Printing and Publishing Branch indicates that undue hardship among lithographers can be avoided if sup-

plies of materials are made to go as far as possible. Lithographers should initiate their own programs of saving inks and make economies generally.

#### **Baltimore Lithos Hear Butler**

Robert J. Butler, general sales manager of Fuchs & Lang Manufacturing Co., New York, was guest speaker at a meeting of the Litho Club of Baltimore held in that city last month. Speaking on "The Present and Future of Raw Materials," Mr. Butler discussed the shortage of various oils and pigments used in ink manufacture and plans for curbing the use of large amounts of yellow color, particularly on 24-sheet posters. He pointed out, however, that no immediate or drastic changes in the industry as a whole were expected as a result of the war effort. In fact, he said that the Government had assured the industry every consideration since it felt that the continued use of color in advertising would bolster morale. The Baltimore group combined its regular February meeting with an oyster roast party which was held on February 14th. Michael Flynn was chairman of the committee responsible for the success of the affair.

#### **Stresses Importance of Good Will**

"What of Tomorrow" is the title of the first folder issued by Whiting-Plover Paper Co., Stevens Point, Wis., in its 1942 series of mailings to lithographers. Stressing the importance of good will as a means of maintaining customer relations on a satisfactory basis now and as a method of preparation for future conditions, the folder emphasizes the fact that good will has no price and cannot be bought, but proves its value only in contrast to those short-sighted firms and individuals who have never troubled to build it up. Copies available on request.

Roger Stephens, president of Litho Media, Inc., was in Chicago last month to arrange for the distribution of 400 copies of *Litho Media* to Chicago users of lithographed products. Chicago lithographers and supply houses cooperated with Mr. Stephens in making the copies available.

# A STEADY SWING TO THE KODAK FLUORESCENCE PROCESS



Kodak Fluorescent Water Colors are used just as ordinary colors. The fluorescence is invisible in white light. Note the instructions printed on the cover of the sturdy wooden container for the eighteen jars.

**A**CCURATE reproducibility and more rapid production of color-corrected separations are two important reasons for the popularity of the Kodak Fluorescence Process. The set of eighteen colors provides a full range of color combinations, without including highly saturated colors which cannot be reproduced satisfactorily with the best process inks. The artist and the photo-mechanical worker can be confident that the reproduction will match the "copy" closely. Highlight rendition is improved by the use of a special color, Kodak Fluorescent Highlight Water Color No. 19, not included in the set.

In some instances, weeks have been saved

in the production of accurately corrected four-color printing plates. Deadlines can be moved closer to delivery dates. Rush orders can be accepted that formerly had to be refused.

The new process is easily introduced. No change whatever is required in the artist's technique. And the photographer soon becomes accustomed to the use of the Kodagraph Copyboard Hood and special filters which provide the correct balance of ultra-violet, blue-violet, and green light.

Ask the Eastman demonstrator for further information, and order Kodak Fluorescence Process equipment and supplies from your Graphic Arts dealer.

GRAPHIC ARTS SALES DIVISION  
**EASTMAN KODAK COMPANY, Rochester, N. Y.**



*"Light Up  
Your Letterhead"*



*There's More Profit* in your letterhead business with "Light Up Your Letterhead". . . a new technique of letterhead design that lifts your letterheads out of price competition. The Book of the same name has twenty beautiful demonstrations . . . a compelling Sales Tool that shows you how to create "illuminated" headings that your customers will reorder. It is *not* advertising, rather it is a Sales Plan sponsored by a Mill that believes in *working with* its loyal customers—lithographers who are substantial users of our papers. Even though you may not be a consistent user of our papers you should see this plan to appreciate it. At your request we will be glad to have it shown to you.

FOX RIVER PAPER CORPORATION

APPLETON, WISCONSIN

# War and Lithography

Please bear in mind that the defense picture is a rapidly changing one and that this is a monthly report. The facts reported herein represent the latest available information at the time of going to press. They may change overnight.

**R**EPORTS from Washington over recent weeks have indicated a growing concern over supplies of colored inks for the coming years—with talk of reduction in volume of colors and dyestuffs that will be allocated to the ink industry, or even the prohibition of use for certain printing purposes of specific colors in particularly short supply. Chrome yellows, for instance, offer a special problem, as do clean, permanent blues. The suggestion has been made that such colors be eliminated from use as decorative backgrounds, banned for greeting card printing,—in short reserved for use where they cannot readily be replaced.

Though many users are voluntarily giving up as a patriotic gesture some of the particular shades in short supply, and though eventually serious limitations might have to be placed on the ink maker's ability to supply individual colors, there is as yet nothing for the average ink user to worry about in the current situation, to judge from opinions of numerous lithographic ink manufacturers interviewed in recent weeks. To questions as to whether 1942 inks will match process jobs turned out with 1941 inks the typical answer of the ink maker is "Let us do the worrying about matching your colors. When we feel that limitations may have to be imposed, we will come to

you and tell you frankly what to expect. We can obviously guarantee nothing for the *distant* future, but for the next few months at any rate we can give adequately commercial duplication of 99% of the inks available a year or two ago."

There are a number of factors behind this general confidence of the ink trade in its ability to continue to supply colored inks of the same high quality and in the continued needed quantities. For one thing, the elimination of automobile manufacture is going to release thousands of pounds of colors which formerly went into surface coatings. There is a second factor in the very possible reduction in advertising volume. Automobile manufacturers, refrigerator manufacturers and other such generous users of fancy colored catalogs are going to be practically out of this market during 1942. Finally, there is the confidence of the ink industry in its ability and resourcefulness. The expert ink formulator has for years prided himself on his ability to achieve close commercial duplication of a high cost ink with different and cheaper ingredients, without sacrificing hue, strength, permanence, etc., to any appreciable extent. If shortages of colors become more acute, he will simply continue to do the same job tomorrow, except that he will be substituting available for non-available ingredients, rather than lower-

priced for high-priced raw materials. In the meanwhile his attitude is "Let me do the worrying."

**W**E understand that not too long from now inspectors under the War Production Board will visit private manufacturing plants to see that priority orders and regulations are not being violated. There are very severe penalties for violations so lithographers are urged to read over carefully and become familiar with Priorities Regulation No. 1, amended. Lithographers should also become familiar with the terms of any preference rating orders which have been assigned to them, or which they have used (such as Preference Rating Order P-100 which assigns an A-10 rating for items of repairs, maintenance and supplies). In both of these documents particular attention is directed to the inventory restriction provisions which limit the amount of inventory permissible to have on hand, the amount of material permissible to purchase, and the amount of material which may be withdrawn from your *own* stores.

**P**RIORITIES Regulation No. 1, which has been amended, is the basic document which governs the operations of the priority system. It not only affects those who are doing defense jobs and those who are making use of preference ratings but it also affects *any* manufacturer with respect to his inventory of materials and supplies.

Perhaps the most important change made by the amendment to Priorities Regulation No. 1, according to an explanatory bulletin issued by the Lithographers National Association last month, is the requirement that all orders bearing a priority rating, including B-ratings for essential civilian orders as well as A-ratings for defense orders, must be accepted by producers in preference to any un-rated order. Previously, the acceptance of B-rated orders was not mandatory.

The required acceptance of B-rated orders, the LNA bulletin goes on to explain, is a further transitional step in the move toward allocation

# ADJUSTED SPACING

*brings new distinction and easier readability  
to all typewriting work...*



IBM ELECTROMATIC  
TYPEWRITER with  
Adjusted Spacing

The clear, attractive printing which results from the new Electromatic Adjusted Spacing Typewriter will make good impressions on your prospects, customers and clients. Here is a new machine and a new principle. Improved readability is obtained by employing newly designed "printing type" characters, and by providing the exact amount of space between each character in proportion to its size. Typewriting now becomes as attractive as book printing.



**EXECUTIVE**—Work produced on the Electromatic Adjusted Spacing Typewriter has an individuality which appeals to business men in search of more distinctive correspondence. Rush jobs, too, are handled easily with no sacrifice of quality or accuracy.



**TYPIST**—Operators of the Electromatic Adjusted Spacing Typewriter are amazed at the ease of producing perfect typewritten copy for photographic or direct plate masters. No pounding of the keyboard... all type impressions are made by a feather-light touch—the quiet electric motor does the work.



**DUPLICATOR**—Photographic, paper or metal plates written on the Electromatic Adjusted Spacing Typewriter produce results like fine printing. Duplicator operators praise the work of this modern machine. Also, it eliminates special adjustments, provides more and better copies in less time.

INTERNATIONAL BUSINESS MACHINES CORPORATION

Offices in



Principal Cities



of scarce materials, since B-ratings are one method of designating the relative importance of civilian uses for materials after war requirements have been met.

Says LNA: "Section 944.14 of Priorities Regulation No. 1 limiting inventories has been made much stricter. Whereas producers were previously forbidden to increase their inventories beyond the amount necessary to meet required deliveries of their products, they are now forbidden to accept delivery of materials for inventory in excess of a practicable working minimum. This means that all inventories of any materials whatever must be reduced to a practicable working minimum, strictly construed, before they can be replenished. The prohibition applies to suppliers of materials for inventory as well as to producers who maintain inventories, and it covers non-defense as well as defense producers. This is an important section of the regulation because it affects lithographers whether or not they are engaged in defense work.

"The original violations provision was restricted to penalties for furnishing false information. It has now been amended to provide penalties for violation of any order or regulation of the OPM. The penalty is that a violator may be prohibited from making or obtaining further deliveries of material under priority control and may be deprived of further priorities assistance. With this change in the inventory and penalty provisions, familiarity with Priorities Regulation No. 1 becomes important to lithographers and the full text should be read carefully."

**T**HE monthly use of crude rubber in the manufacture of offset blankets is limited to 80% of the average monthly amount used from April 1, 1940 to March 31, 1941. This cut (and it probably will be increased, later on) means that offset blankets will be harder to get; and it means that lithographers will have to take the best possible care of the blankets they already have.

One manufacturer of offset blankets, according to a bulletin issued by the Lithographers National Asso-

ciation, believes that the present 20% cut in the use of crude rubber in the manufacture of offset blankets may result in only a 10% (or slightly over) cut in the production of offset blankets. This can be achieved through changes in the formulation of the blanket which will result in a blanket that may not look as well from the standpoint of color and uniformity but which will give satisfactory operating performance nearly equal to that of blankets made with the full amount of crude rubber. In the past many manufacturers have rejected new blankets because of slight surface imperfections, and similarly, have discarded from their presses blankets which showed slight signs of wear in spots. This must change now.

Here are a few suggestions, offered by the LNA in its bulletin: "Do not be too particular in the looks of the blanket if the operating qualities are satisfactory. Take good care of your blankets to see that they are kept clean when not in use. Give your blankets a chance to rest. (This is a good tip for extending the life of your blankets.) Don't run a blanket until it wears out. After some use, remove it from the press, clean it well, and lay it away to recover, using another blanket on the press. Alternating blankets in this manner, will prolong considerably their life. Consult your offset blanket manufacturer or dealer for more detailed and comprehensive suggestions as to how to make your blankets last longer and go further."

**P**RIce Schedule No. 30-Waste Paper Sold East of the Rocky Mountains has been amended again. One increase and one decrease in the maximum prices for two grades of waste paper, abolition of one grade, addition of four new grades and several changes in language are included in the new amendment.

The maximum price for No. 1 mixed paper is raised by \$1 to \$14 a ton. The new amendment also abolishes the separate grade for super-mixed paper and the definition of No. 1 mixed paper is revised to cover types formerly classed as super-mixed. The new definition in-

cludes, among other items, dry-goods waste, department-store waste, *printers' waste*, container manila, print manila, country packing and so forth, in addition to the clean, dry wastepaper previously defined as No. 1 mixed paper.

**T**HE Printing and Publishing Branch of the War Production Board has modified its instructions that stock on hand of aluminum powder and roll leaf must be reported to the Aluminum Section before using: lithographers who *already have* in their possession aluminum powder or roll leaf may use up such stocks *without* reporting to or asking permission. The purchase, of course, of any aluminum powder or roll leaf comes under a very strict priority order and requires reporting to and obtaining permission from the Aluminum Section.

**L**IMITATION Order L-20 curtailing the use of cellophane has been amended so that it covers many more articles. Twenty-four general uses of cellophane, and similar materials, either for packaging or manufacturing are prohibited. The original ban applied only to 10 general categories. Some of the items affected are paper and paper products, including books, labels, tags, index cards, advertising and display material, greeting cards, playing cards, etc. The limitation order does not apply to stocks of cellophane in users' hands on or before January 8th nor to stocks held by suppliers which were cut, processed, or printed prior to January 8th in such a way that they could not be used by persons unaffected by the order.

William H. Wood, director of chemical research, Harris-Seybold-Potter Co., Cleveland, was guest speaker at a meeting of the New York Printing Ink Production Club held at the Governor Clinton Hotel, New York, last month. Speaking on the subject, "Lithography Needs New Inks," Mr. Wood gave his views on the type of inks needed for the lithographic process from the standpoint of the press manufacturer.

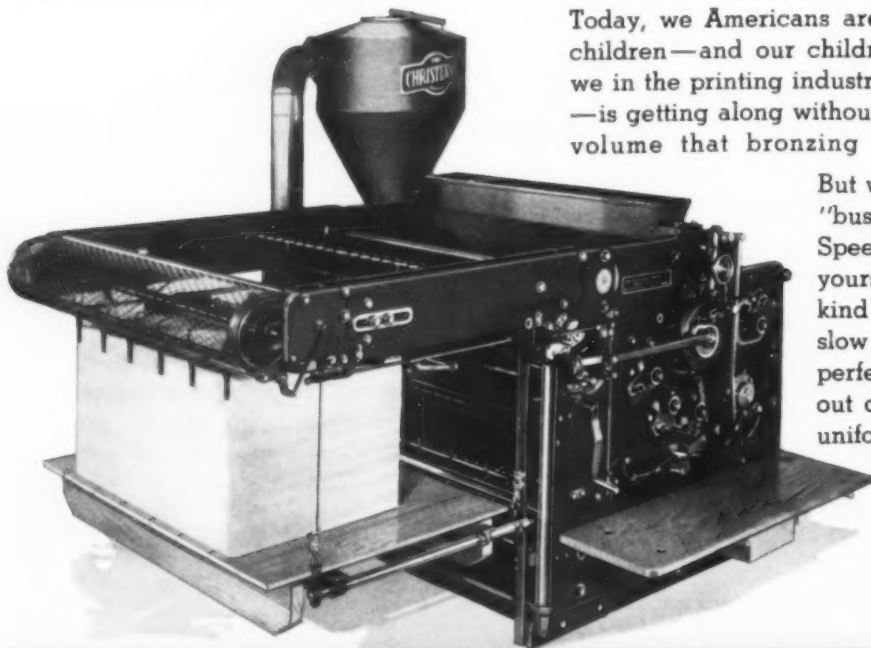
# A Good Reason

why today you can't  
enjoy the profits  
bronzing normally  
brought to you —



... by the

## Christensen High-Speed Bronzer



Today, we Americans are fighting to preserve liberty for our children—and our children's children. One of the sacrifices we in the printing industry must make—in the cause of Victory—is getting along without bronze powder . . . and without the volume that bronzing jobs bring us.

But when we can again go on the basis of "business as usual," the Christensen High-Speed Bronzer will again help you put yourself in a position to compete—with the kind of efficient operation that prevents slow production, annoying delays, or imperfect sheets from knocking the profits out of your bronzing cost estimates—with uniformly-dusted, attractive work that brings re-orders from satisfied customers.

★ Be ready to equip yourself for tomorrow's highly competitive battle for business. Keep handy in your file Bulletin No. 103 describing the widely-used Christensen High-Speed Bronzer. Write for it now.

**THE CHRISTENSEN MACHINE COMPANY**

100 FOURTH STREET

RACINE, WISCONSIN

# Offset press operation

**BY LAWRENCE GRENNAN**

Mr. Grennan is a member of the offset department of the Hartford Fire Insurance Co., Hartford, Conn., and a member of the board of the newly-formed Connecticut Valley Litho Club.

**F**IRST class litho production is accomplished only by full co-operation of all departments concerned. The pressroom, for example, should be operated on a specific or set standard. It is my intention here to give a few standards which I have found helpful and practical.

Naturally, I cannot tell what make of press you are operating nor the depth of the plate cylinder under-cut. What I can say, however, is that the press manufacturers and engineers have scientifically determined the diameter and under-cut of the plate cylinder, the markings of which are most generally stamped on the web of the casting in the opening of the plate cylinder.

I will admit that stock will create conditions which are hard to standardize in spite of hell and high water. In order to compensate for these existing conditions it will be frequently necessary to change the diameters of the cylinders, but bear in mind by so doing you create a change in surface speeds of the cylinders of the steel drums which drive the form rollers, and the brass roller which drives the dampening rollers.

One factor in printing good lith-

ography is to maintain synchronized surface speeds. Do not lose sight of the fact that the steel drums which drive the form roller and the brass roller, which in turn drives the dampening rollers are gear driven to synchronize with plate surface speed when packed to manufacturer's designated specifications. That is where the shoe pinches. When the plate is over packed, a distortion of surface speeds takes effect. The plate, which is traveling faster than the drums and brass roller, is using the form and dampening rollers as breaks, causing a definite slip or drag on the plate. This is responsible for roller streaks, grain, and image wearing off, smear and greasing up of half-tone dots. These all add up to poor pressmanship and do not improve the appearance of any job.

It is very essential to maintain an even balance between ink and water. In order to accomplish this the form rollers and dampening rollers have to be set properly. There are several ways to do this. If you are not satisfied with your method, try these suggestions: in starting be sure there are no bent spindles and that the surface of the rollers are the same circumference along the entire length; if there is any side play due to wear

on sockets or spindles, bush them with shims in the form of washers which can be obtained at most any machine shop.

This will take care of any side slip of form rollers when the steel rider drums agitate. Now drop the form rollers on to the plate then adjust the rollers so they do not touch the plate or the drums. This will allow the drum arms or brackets to rest on the adjusting bolts. Adjust bolts so that drums may be set parallel with the plate cylinder. Bring form rollers to the plate and drum with a "kiss contact." Turn press so that the form rollers are over the opening of the plate cylinder. Make sure that the rollers still contact the drums. This procedure should insure perfect roller setting.

In order to balance the ink you have to have perfect control of the water. This is not a difficult job, providing the water fountain supply roller and dampening roller spindles are not bent, and the roller circumferences are the same the length of the rollers.

The necessity of clean dampening covers is well known. The water supply roller should be covered with cloth, -250 drill quality. You will find this coarse enough to carry a good supply of water. For instance, if the water controls are set at minimum, the plate will dry up, if the controls are set at the maximum the plate will be flooded. These conditions will give the pressman a working range to control the water.

Care should be taken when setting the ductor dampening roller. If this roller is set with too tight a contact on the water fountain supply roller it will squeeze most of the water out of the ductor roller instead of carrying it. When this adjustment has been made, turn the press in a position to check the ductor roller contact with the brass or aluminum vibrator or agitating roller.

Most presses have springs that can be adjusted with tension enough to maintain this contact. If the press you operate has no springs for the above purpose it will be well worth your trouble rigging them up.

Last, but by no means, least, it

(Turn to page 63)





## "I USE BINGHAM ROLLERS"

No wonder he is pleased. His sheets are clean. Every dot is up on the halftones—and he made ready in record time.

No matter what kind of printing he does, there is a Bingham Roller that will help insure quality—and make his work easier.

Bingham Natural or Synthetic Rubber Rollers are long wearing for high-speed rotary presses. Bingham's Composition Rollers have become standard for use where the most careful inking is required.

Bingham's SAMSON (Vulcanized Oil) Offset Rollers are smooth and tough. They do a good inking job and are priced right.

For the finest offset work Bingham LITHO-PRINT (Rubber) Offset Rollers afford the best in ink distribution that can be had.

For any Roller need depend on Bingham. Call or write the nearest Bingham factory or representative.

# SAM'L BINGHAM'S SON MFG. CO.

## CHICAGO

Atlanta  
Cleveland  
Dallas

Des Moines  
Detroit  
Houston

Indianapolis  
Kalamazoo  
Kansas City

Minneapolis  
Nashville  
Oklahoma City

Pittsburgh  
St. Louis  
Springfield, O.

# Offset paper at work

Another in the series on offset paper by Mr. Wheelwright, author of "Printing Papers," a definitive work on papers of all types for the Graphic Arts, recently published by University of Chicago Press.

BY WILLIAM BOND WHEELWRIGHT

**A** WELL known manufacturer of rag content bond and ledger papers recently made the following announcement:

"You can well imagine that to a mill whose reputation and tradition are built upon the highest standards of quality, it is a painful thing to have to relax those standards even a little.

"That it is necessary to relax standards is generally understood. Essential chemicals that help us achieve brilliant whiteness and high opacity . . . are under strict priorities and the supply is limited. Chemicals, however, are only one factor in the complicated process of making fine paper. Equipment, skill and experience are still the prime ingredients."

The relaxing of standards referred to was the so-called "brightness" of color, the brilliance of whiteness. The chemical affecting this property is chlorine, which is needed in the preparation of many different defense materials.

We need not take the restrictions on the use of chlorine too seriously. So far as fine writing papers and printing papers are concerned, the properties which determined their durability and permanence will feel no ill effects. As the manufacturer

quoted above points out, "You need not expect to find a falling off in the standards of strength, finish or handling qualities. . . . To a keen eye, or on close comparison with former standards, there will be some loss of whiteness, but the belief that paper will be yellow or even noticeably gray is sheer nonsense."

Bleaching by means of chlorine began in this country after the first of the 19th century. At first its dangers were not fully understood

and chemical residues remained occasionally which brought about subsequent yellowing and weakening of the fibre. This is true of papers made even within the past forty years, before laboratories and chemical engineering had begun to play their present part in the paper industry.

Of late years there has been a tendency toward overdoing the bleaching in order to produce a "whiter" paper than one's competitors. Even if the chemical residues were completely eliminated, the strength of the fibres was bound to be lessened by over-bleaching. From an aesthetic point of view these whiter papers were considered by many to be less pleasing. In the case of color process printing this is especially the case. But competition forced along the tendency toward increased whiteness. The natural and light natural tints which prevailed formerly became "unfashionable." The lower grades of paper were "blued up" to give an impression of more "whiteness." Many of us will not regret that recent standards of whiteness are about to be relaxed.

Without comparing actual samples of past and present standards it is difficult to visualize the contrasts. They can only be expressed numerically by a "brightness number."

"Brightness number" is the meas-

(Turn to page 63)

## CEILINGS FOR PAPER BRIGHTNESS\*

Brightness No.	GRADE OF PAPER
82	100% rag content writing paper
80	75% rag content writing paper
77	50% rag content writing paper
75	25% rag content writing paper
74	Sulphite bond, ledger, writing, mimeo.
74	No. 1 Bristol and index
73	No. 2 Sulphite papers
72	A and B grade book papers and super litho label
72	Rotogravure; machine coated grades book paper
71	No. 2 Bristol and index
70	Offset, envelope, all grades blotting
68	C, D, and E grade book paper, tablet, drawing, poster
68	End leaf, band stock, No. 3 Bristol and index, cardboard
67	Ground wood, all grades

\*Abstracted from The Paper Trade Journal, Nov. 20, 1941.

## IN AND ABOUT THE TRADE

### **NAPL To Meet in Cleveland**

The National Association of Photo-Lithographers has announced that it will hold its 10th annual convention in Cleveland, September 24, 25, and 26.

### **Allegheny Appoints Maurer**

Henry G. Maurer has been appointed general manager of Allegheny Lithograph Corp., Pittsburgh, to fill the position left vacant by the recent death of Edwin W. Boynton. Mr. Maurer was formerly with Copifyer Lithograph Corp. of Cleveland and for the past two years had been auditor for Allegheny.

### **Forms New Offset Firm**

Elwood W. Baker, formerly manager of Conde Nast Engravers, Inc. and Offset Printing Co., has formed a new lithographing and platemaking concern to be known as Baker Offset Co. Headquarters of the new company will be at 209 West 38th Street, New York.

### **New Eng. Lithos Elect Kendall**

At its first meeting of the new year, held at the Hartford Gas Co., Hartford, Conn., on February 6, the Connecticut Valley Litho Club elected Fred Kendall, Kellogg & Bulkeley Co., Hartford, as its new president for 1942. He succeeds Anthony DiNicola, A. D. Steinbach Co., New Haven, who becomes chairman of the board of directors. Other officers elected were:

Ralph Rich, Rich Lithographing Co., Chicopee Falls, Mass., vice-president; Clifford Du Bray, Brooks Bank Note Co., Springfield, Mass., treasurer; Frank Holloway, General Printing Co., Springfield, Mass., secretary.

Those elected to the board, in addition to Mr. DiNicola, were: Lawrence Grennan, Hartford Fire Insurance Co., Hartford; Albert Schulze, Worcester Lithograph Corp., Worcester, Mass.; and Wendell Guy,

New England Printing and Lithographing Co., Bridgeport, Conn.

Lou Tamb, Fuchs & Lang Mfg. Co., Springfield, Mass., still heads the Membership and Publicity Promotion Committee. The new president, Fred Kendall, was speaker at the election meeting, and gave an interesting talk on pH control. Future meetings of the club have definitely been set for the first Fridays of April, October and December.

### **R. B. Calvert Heads Reserve**

R. B. Calvert has been elected president of Reserve Lithograph & Printing Co., Cleveland, to succeed P. N. Calvert who died last November. J. H. White has been named president of Calvert-Hatch Co., a position also formerly held by P. N. Calvert.

### **Frank F. Groff Dies**

Frank Fisher Groff, 59, former president of the Consolidated Decalcomania Corp., Brooklyn, died last month. Mr. Groff was graduated from New York Law School in 1905 and was admitted to the New York bar the same year. He retired from private practice in 1909 to enter the decalcomania field. In 1937 Mr. Groff returned to the practice of law and at his death was a member of the law firm of Parsons, Labrecque & Borden.

### **Chicago Lithos Elect Leggett**

Walter Leggett, executive of U. S. Printing & Lithographing Co., St. Charles, Ill., was chosen president of the Chicago Lithographers Club at the annual election held last month. He succeeds Albert Brinkman, who recently left Chicago to assume a position with Wolff Printing Co., St. Louis. Jack Hagen, production manager of Workman Mfg. Co., and former president of the Chicago Club of Printing House Craftsmen, was elected vice-president to fill the post formerly held by Mr.

Leggett. Harold Harpling of Curt Teich & Co., was re-elected secretary and Martin Wezeman of Columbian Lithographing Co. will continue as treasurer.

The Chicago club's new president has been identified with the lithographing industry for 36 years. Entering the employ of Carqueville Litho Co. as bookkeeper, he became the concern's president in 1912. Two years later he was made general manager of Schmidt Litho Co., which later was affiliated with U. S. Printing & Lithographing Co. In 1929 Mr. Leggett moved to his present position as office manager and purchasing agent of the company's St. Charles plant. He has also been active in the Chicago Craftsmen's Club for many years.

### **Appoint J. J. Skach**

D. F. Keller & Co., Chicago, have announced the appointment of Joseph J. Skach to the position of promotion manager. Mr. Skach, who assumed his new duties January 19, had been associated for a number of years with the now defunct Rosenow Co.

### **Builds Addition to Litho Plant**

Newman-Rudolph Litho Co., Chicago, has constructed a one-story addition, 90 x 120 in size, at the rear of its plant at 844 West Jackson Boulevard, for use as a shipping room and to provide storage space for supplies. The company installed two new 2-color Harris offset presses last month in order to handle its growing business in lithographed books, calendars and other lines.

### **Promote Henry Georghan**

Magill-Weinsheimer Co., Chicago, has announced the promotion of Henry Georghan to the position of superintendent of the offset pressroom. He succeeds Albert Brinkman, who resigned January 1 to accept a position with Wolff Printing Co. of St. Louis.





Lithographed in 4 colors

# WARREN'S Cumberland Offset

►PRE-CONDITIONED◀

## WOVE & SPECIAL FINISHES

Postal regulations prohibit sampling of paper in this publication, therefore Cumberland Offset is not used for this insert.  
Sample Book of all finishes of Warren's Cumberland Offset may be secured from your Warren merchant.

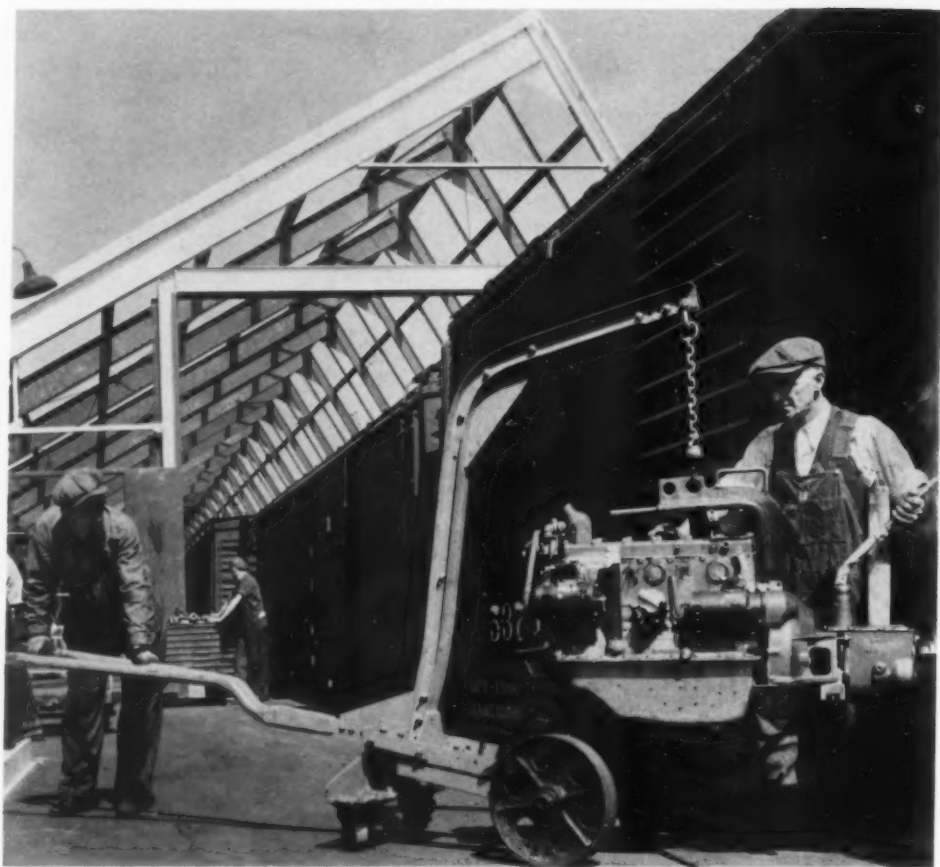
*Leading*  
**PAPER MERCHANTS**  
*who sell and endorse*  
**Warren's Standard Printing Papers**

ALBANY, N. Y.	Hudson Valley Paper Company
ATLANTA, GA.	Sloan Paper Company
BALTIMORE, MD.	
	The Barton, Duer & Koch Paper Co.
BATON ROUGE, LA.	Louisiana Paper Company, Ltd.
BIRMINGHAM, ALA.	Strickland Paper Company
BOISE, IDAHO	Zellerbach Paper Company
BOSTON, MASS.	Storrs & Bement Company
BUFFALO, N. Y.	The Alling & Cory Company
CHARLOTTE, N. C.	Caskie Paper Company, Inc.
CHICAGO, ILL.	Chicago Paper Company
CINCINNATI, OHIO	
	The Diem & Wing Paper Company
CLEVELAND, OHIO	The Petrequin Paper Company
COLUMBUS, OHIO	The Alling & Cory Company
	The Diem & Wing Paper Company
DALLAS, TEXAS	Olmsted-Kirk Company
DENVER, COLO.	Carter, Rice & Carpenter Paper Co.
DES MOINES, IOWA	Western Newspaper Union
DETROIT, MICH.	Seaman-Patrick Paper Company
EUGENE, ORE.	Zellerbach Paper Company
FORT WORTH, TEXAS	Olmsted-Kirk Company
FRESNO, CAL.	Zellerbach Paper Company
GRAND RAPIDS, MICH.	
	Quimby-Kain Paper Company
GREAT FALLS, MONT.	
	The John Leslie Paper Company
HARTFORD, CONN.	Henry Lindenmeyr & Sons
HOUSTON, TEXAS	L. S. Bosworth Company
INDIANAPOLIS, IND.	Crescent Paper Company
JACKSONVILLE, FLA.	Virginia Paper Company, Inc.
KANSAS CITY, MO.	Midwestern Paper Company
LANSING, MICH.	The Weissinger Paper Company
LITTLE ROCK, ARK.	Western Newspaper Union
	Arkansas Paper Company
LONG BEACH, CAL.	Zellerbach Paper Company
LOS ANGELES, CAL.	Zellerbach Paper Company
LOUISVILLE, KY.	Miller Paper Company, Inc.
LYNCHBURG, VA.	Caskie Paper Company, Inc.
MILWAUKEE, WIS.	Nackie Paper Company
MINNEAPOLIS, MINN.	
	The John Leslie Paper Company
	Henry Lindenmeyr & Sons
NEWARK, N. J.	Lathrop Paper Company, Inc.
NEW HAVEN, CONN.	Storrs & Bement Company
	Henry Lindenmeyr & Sons
	Lathrop Paper Company, Inc.
NEW YORK CITY	The Alling & Cory Company
	J. E. Linde Paper Company
	The Canfield Paper Company
	Marquardt & Company, Inc.
	Schlosser Paper Corporation
OAKLAND, CAL.	Zellerbach Paper Company
OKLAHOMA CITY, OKLA.	Western Newspaper Union
OMAHA, NEB.	
	Field-Hamilton-Smith Paper Company
	D. L. Ward Company
PHILADELPHIA, PA.	The J. L. N. Smythe Company
	Schuylkill Paper Company
PHOENIX, ARIZ.	Zellerbach Paper Company
PITTSBURGH, PA.	The Alling & Cory Company
PORTLAND, ME.	C. M. Rice Paper Company
PORTLAND, ORE.	Zellerbach Paper Company
RENO, NEV.	Zellerbach Paper Company
RICHMOND, VA.	B. W. Wilson Paper Company
ROCHESTER, N. Y.	The Alling & Cory Company
SACRAMENTO, CAL.	Zellerbach Paper Company
ST. LOUIS, MO.	Beacon Paper Company
ST. PAUL, MINN.	The John Leslie Paper Company
SALT LAKE CITY, UTAH	Zellerbach Paper Company
SAN DIEGO, CAL.	Zellerbach Paper Company
SAN FRANCISCO, CAL.	Zellerbach Paper Company
SAN JOSE, CAL.	Zellerbach Paper Company
SEATTLE, WASH.	Zellerbach Paper Company
SHREVEPORT, LA.	Louisiana Paper Company, Ltd.
SPOKANE, WASH.	Zellerbach Paper Company
SPRINGFIELD, MASS.	
	The Paper House of New England
STOCKTON, CAL.	Zellerbach Paper Company
TOPEKA, KAN.	Midwestern Paper Company
TROY, N. Y.	Troy Paper Corporation
TULSA, OKLA.	Tulsa Paper Company
WACO, TEXAS	Olmsted-Kirk Company
WALLA WALLA, WASH.	Zellerbach Paper Company
WASHINGTON, D. C.	Stanford Paper Company
YAKIMA, WASH.	Zellerbach Paper Company

**EXPORT AND FOREIGN**

NEW YORK CITY (Export) National Paper & Type Co.  
*Agencies or Branches in 40 cities in Latin America and West Indies.*

AUSTRALIA B. J. Ball, Ltd.  
 NEW ZEALAND B. J. Ball, Ltd.  
 HAWAIIAN ISLANDS Honolulu Paper Co., Ltd.,  
*Agents for Zellerbach Paper Company*  
 PHILIPPINE ISLANDS  
 A. C. Ransom Philippine Corporation



# WARREN's Cumberland Offset

► **PRE-CONDITIONED** ◀

WOVE • SAXONY • HOMESPUN • LINEN • HANDMADE

**W**ARREN'S Cumberland Offset is *pre-conditioned* by the exclusive process that has been used successfully on Warren's Label papers. Under average pressroom conditions, both winter and summer, Cumberland Offset may be run directly from the case or skid without further conditioning by hanging.

Comprehensive pressroom tests indicate that Cumberland Offset exhibits a minimum of stretch or shrinkage under changing atmospheric conditions. Tendencies toward curling and "cockling" are held to a minimum—even under extreme conditions of relative humidity.

Because of its flat-lying properties Cumberland Offset is a "production" sheet which may be run at maximum press speeds.

*Write for free booklet—"How Will It Print by Offset"*

**S. D. WARREN COMPANY • 89 BROAD STREET, BOSTON**

Better Paper  Better Printing  
 Printing Papers

### **Rosenow Equipment Sold**

A public auction of machinery, office fixtures and all other equipment of the Rosenow Co., Chicago printing and lithographing concern, was held at the company's plant last month. Previously the auctioneer had purchased the property for \$65,000, at a receiver's sale in Federal court bankruptcy proceedings. Founded in 1898 by Max G. Rosenow, now deceased, the firm had specialized in color work by both letterpress and offset for *Esquire* and other publications and for many national advertisers. It was the first Chicago printing house to utilize the one-shot camera, and also figured in the development of many technical innovations in color process work. Following the founder's death in 1931, his son, Milton Rosenow, took over executive responsibilities, and when Milton died, in 1937, his brother, Lloyd, became general manager.

### **LTF Asks Industry Advice**

In view of the war program, lithographing, paper and ink companies are being asked by the Lithographic Technical Foundation to write and express their opinions regarding the advisability of offering for the fifth time this summer its now well-established Intensive Course in the Fundamentals of Lithography. Readers of this notice are urged to report to the Foundation, 220 East 42nd Street, New York City, the names of individuals or firms that have expressed interest in the Intensive Course.

### **Contribute to Chicago Fund**

Chicago graphic arts concerns went over the top in that city's annual fund drive for the Community Chest during the past few months. With a quota of \$75,000 assigned to the division, contributions up to January 15th totalled \$75,473.74, and pledges were still coming in. Names of thirty-five lithographing companies were included in the list of donors, with a total of approximately \$7,000 or an average of almost \$200 each, to their credit. In the ink group, practically all of Chicago's forty ink firms con-

tributed, their total being around \$3,500. I. S. Berlin, president of I. S. Berlin Printing and Lithographing Co., was chairman of the lithographers' group and among the ink men the drive was directed by R. W. Smith, manager of International Printing Ink's Chicago branch, with James J. Kerwin, secretary of the Chicago Printing Ink Manufacturers Association, as co-chairman.

### **Chicagoans Hold Offset Night**

"Offset Night" at the January 20th meeting of the Chicago Club of Printing House Craftsmen brought out nearly 300 Chicago printers and lithographers to hear a down-to-earth discussion of offset production problems. Norman Mack, of Maklin Litho Plate Graining Co., who had been scheduled to serve as chairman of the session, was unable to attend because of his mother's death and Jack Hagen, superintendent of Workman Manufacturing Co., substituted for him. Serving with Mr. Hagen were Joseph J. Skach, of D. F. Keller & Co., George Skach of H. J. Schultz, Paul Hansen of Chicago Litho Plate Graining Co. and Lowell Dummer of National Press, Inc.

To dramatize the presentation, Mr. Hagen posed as a printer who had just added offset equipment and was preparing to produce his first job, a promotional catalog. He called into conference the men he had hired to run the new department and asked them what to do and why. They decided on the deep-etch process, selected screens, films and plates to use, surveyed problems of make ready, talked of press adjustments, suggested short cuts and discussed the multitude of other problems with which any beginning lithographer would be faced in a similar situation. Seldom has the subject been handled in a more unique, impressive and practical manner, and the audience was unanimous in its approval of the presentation.

Adding emphasis to this verbal discussion was the visual demonstration given by the Harris-Seybold-Potter motion picture, "Offset Lithography," which was shown after

the offset discussion. The picture depicted step-by-step production of a catalog in the plant of Peoria Blue Print and Photopress Co., where the movie was filmed. Added interest was provided by the presence at the meeting of Rex Howard, head of Peoria Blueprint, who, in a brief talk, told of how he had conceived the idea of making a film to show his facilities to prospective printing buyers, and how later, because of its practical nature, sponsorship of the film was assumed by Harris-Seybold-Potter.

Mr. Mack, with Mr. Hagen's assistance, had assembled an unusually extensive exhibit of products of Chicago lithographic plants and trade shops for display at the meeting. Among those represented in the exhibit were Baker Reproduction Co., Chicago Litho Plate Graining Co., Casper Tin Plate Co., Meyer-cord Co., Columbian Lithographing Co., Goes Lithographing Co., Magill-Weinsheimer Co., Regensteiner Corp., Weber Lithographing Co., H. J. Schultz, Butler Bros., University of Chicago Press, Workman Manufacturing Co. Harris-Seybold-Potter Co., E. G. Ryan & Co., and the West Virginia Pulp & Paper Co., also provided display material.

### **LNA Sponsors School Contest**

The Lithographers National Association, New York, will sponsor the third annual lithographed Publications Competition to be held in connection with the 18th annual convention of the Columbia Scholastic Press Association. Each lithographed publication entered in the regular contest will be submitted to a committee appointed by the LNA and special awards made on the basis of their judging. Elementary, junior high school and high school publications are represented in the competition.

### **Hold Annual Dinner**

Magill-Weinsheimer Co., Chicago, tendered its annual fellowship dinner to department heads and foremen at the Kungsholm Restaurant in that city last month. Alfred Baasch, plant superintendent, was toastmaster.



# N. A. P. L. MIDWESTERN OFFICE OPENED IN CHICAGO FEB. 1ST

THIS OFFICE in the middle west has been opened in response to a long expressed urgency, that in late months has reached the intensity of a mandate. The new office, existing as it does in one of the largest lithographic centers of the world, is informed on all matters of lithographic industrial policy, and has complete facility and library of NAPL activity. It will proceed at once to form such projects within the scope of its operation as the needs of the area will demand.

## IMMEDIATE SERVICES

1. Systems of operation covering every detail of up-to-date offset shop operation, including among other things, sales, production operations, and helpful trade practices.
2. Stated periodic meetings for the presentation of new ideas, and for the discussion at first hand of current problems, and for the advancement and growth of the industry in the district.
3. A clearing house of information at the end of a telephone wire for any hour-by-hour problems by simply calling the Chicago office at Wabash 3061.
4. A meeting office where any of the members may gather to go over their problems in private, and gather whatever trade guidance may be wanted.
5. A headquarters wherein the most vital lithographic instructions on fast-moving matters such as OPM and Government war requirements of our industry, may be got in the shortest possible time.



*The above are some of the immediate activities and services.  
Many others will be announced as the work progresses.*

THE TERRITORY covered by the Chicago office is large enough to reach most of the district normally within economical telephone or overnight mail range.

THE DIRECTION of the office is in the hands of Mr. Russell L. Miles, publisher of the Midwestern Lithographer and the Encyclopedia of Lithography, who has for the last 15 years been intimately acquainted with the problems of the lithographic industry in all its phases. Both active and associate members will find his office a handy help in the upbuilding of their interests and business volume.

LITHOGRAPHERS of the middle west are cordially invited to use the facilities of the new office. Address

## NATIONAL ASSOCIATION OF PHOTO-LITHOGRAPHERS

53 WEST JACKSON BOULEVARD—CHICAGO, ILL.

Phone Wabash 3061

## Eastman Exhibits Latest Graphic Arts Processes

**M**ORE than a thousand photo-mechanical workers in the New York metropolitan area visited the Graphic Arts exhibition, sponsored by the Eastman Kodak Company, during its three-day stay at the Hotel Roosevelt, New York, January 26, 27 and 28. This was the first stop in a tour of principal cities: Philadelphia, February 2; Boston, February 5; Chicago, February 17, 18, 19; Minneapolis, February 26—with more to follow.

Visitors could not help but be impressed with the far-reaching importance of the new processes and techniques displayed at the exhibition by Kodak. Among these were the Kodagraph Contact Screen Process and the Kodak Fluorescence Process, both introduced at national trade conventions last fall. However, interest also centered around the various types of color copy, particularly the new Kodacolor process which provides full-color snapshots on paper. These prints are expected to be used widely for photomechanical reproduction because of their low cost and the ease with which they can be assembled or combined to make one color subject from which one set of color separations can be made.

Several methods of masking Kodachrome transparencies to reduce contrast and achieve some measure of color correction were also illustrated. Special attention was given to the new Kodak Masking Panchromatic Film, which is laminated to the face of the transparency, exposed and used in that position, thus disposing of the problem of register.

A combination of separation negatives made with Kodagraph Process Panchromatic Stripping Film also was on display. This new film greatly simplifies the making of direct-screen separations which are

to be assembled in making color combinations.

Long panels down either side of the room held prints, proofs, transparencies, negatives, and positives, as well as diagrams of important steps. Kodak men were on hand to amplify the explanations given by display cards.

Each evening at 7:30, John McMaster of the Eastman Kodak Company lectured on the various processes, techniques, and products, referring frequently to the exhibits. The exhibition was open daily from 10:00 A. M. until late in the evening, giving a good opportunity for leisurely examination of the many interesting items on display.

To briefly summarize: the Kodagraph Contact Screen Process provides improved sharpness of detail and improved tone reproduction, especially where screens, 120 lines to the inch and finer, are used. It involves the use of a continuous-tone magenta negative printed in contact with the Kodagraph Contact Screen to obtain a screen positive. The negative image and the screen pattern are composed of dyes which, in conjunction with the use of filters before the printing light, provide the closest control of contrast in the screen positive without affecting dot formation.

The Kodak Fluorescence Process achieves practically complete color correction in the reproduction of sketches, wash drawings, and similar copy. Kodak Fluorescent Water Colors include precisely proportioned amounts of ingredients which fluoresce under ultraviolet light. Special equipment is provided with which the copyboard can be illuminated by a mixture of ultraviolet and white light. Thus, in one exposure sufficient extra density can be built up in the

negative requiring color correction.

Altogether, the exhibition in New York was a decided success. If you didn't see the show and hear the lecture, and find that the exhibition is still to come within hailing distance, be sure to take it in.

The nine Graphic Arts Sections of the Greater New York Fund raised a total of \$32,387 in the 1941 campaign, according to a report issued last month. George Loder, National Process Co., chairman of the lithographers section, reported a total contribution of \$7,681 from that group and \$369 from the die cutters section which he also headed. The printing machinery section, headed by chairman Bromwell Ault, president of International Printing Ink Corp., contributed \$7,735 to the fund, and Alfred Niemeyer, president of Medo Photo Supply Corp., reported \$2,559 from the Photographic Arts and Industries Section.

Those serving on the committee representing the lithographers section were Andrew Durr, Maverick & Wissinger; M. Griswold, Rogers, Kellogg, Stillson & Co.; George Kindred, Kindred, MacLean & Co.; Dudley Morean, American Colorotype Co.; J. Oastler, John S. Swift Co.; Lee Rosenstadt, Ardlee Service; George Schlegel, 3rd, Schlegel Lithographing Corp.; Charles P. Schmid, Trautman, Bailey & Blampsey; Walter E. Soderstrom, New York Photo-Lithographers Association; George Walsh, Offset Engravers Associates; and Edward D. Wilson, New York Lithographic Corp. The committee representing the printing machinery industry was composed of Robert Cahin, J. M. Huber Co.; H. H. Desmond, Sinclair & Valentine Co.; Herbert Kaufman, General Printing Ink Corp.; David H. Sloane, New York Printing Ink Association; Donald A. Smith, Frederick A. Levey Co.; T. A. Ryan, International Printing Ink Corp.; W. S. Reed, Dexter Folder Co.; H. J. Strohm, Zarkin Machinery Co.; J. W. Valiant, Harris-Seybold-Potter Co. and H. A. Wakefield, Imperial Paper & Color Corp.

Ever Ready Label Corp., New York, has appointed Charles Sacks as plant manager to succeed Fred A. Kissner who resigned recently. Mr. Sacks was formerly superintendent of the composing room of Cuneo Press and prior to that had been connected with Braunworth & Co. and American Book-Stratford Press.



## UNSOLICITED TESTIMONY

from one of the most prominent members of the National Association of Photo-Lithographers given at the recent Mid-western regional meeting in Chicago, January 24th:

"To let our hair down on individual maintenance operations, let's mention Aquatex and Dampabase by name. As far as I know, there is no competing product and it is miles ahead of handmade damper coverings." (Name on request)

Only a 100% record of satisfactory performance could have inspired such a statement. Backed by industry-wide approval, we can say with assurance that AQUATEX, the modern dampening cover for offset rollers, and DAMPA-BASE, the perfected seamless undercovering, will be the solution to your dampening problems.

## GODFREY ROLLER COMPANY

211-17 N. CAMAC STREET, PHILADELPHIA

Wm. P. Squibb, President



## YOUR COOPERATION MAKES FOR GOOD INKS

In pressrooms throughout the country Sinclair & Carroll inks are chosen for their all around dependability and good color strength. The responsible leadership and management back of every Sinclair & Carroll ink you buy mean value to you during this period of national emergency over and above the price per pound. Our efforts will be directed toward maintaining tried and true standards. When and where necessary our laboratories will be at work developing new and equivalent products in your behalf. . . . We welcome your cooperation as well as the opportunities you afford us to supply your ink requirements.

## SINCLAIR & CARROLL CO., Inc.

LITHO

INKS

OFFSET

591 ELEVENTH AVENUE, Tel. BRyant 9-3566

NEW YORK CITY

CHICAGO  
440 W. Superior St.  
Tel. Sup. 3481

LOS ANGELES  
417 E. Pico St.  
Tel. Prospect 7296

SAN FRANCISCO  
345 Battery St.  
Tel. Garfield 5834

NEW ORLEANS  
518 Natchez St.  
Tel. Main 4421



# LTF Recommends Furfuryl Alcohol for Deep-Etch

**A**FTER making an extensive investigation of the field of possible substitute solvents, the Lithographic Technical Foundation recommends the use of Furfuryl Alcohol for washing the plate after deep-etching, and the complete elimination of anhydrous ethyl alcohol.

Restriction for civilian use has made it necessary to find a suitable substitute for the anhydrous ethyl alcohols in deep-etch platemaking by the gum process. These anhydrous alcohols have usually been purchased under the trade names "Ansol M," "Synasol," and "Solox," but because of wartime requirements, they are becoming more and more difficult to obtain.

Furfuryl Alcohol\* is available in quantity and is not likely to be affected by wartime restrictions. While it costs more per gallon (about \$1.29) than anhydrous ethyl alcohol (about \$.65), much less of it is used on the plate and the cost per plate is not increased. Practical tests have shown that Furfuryl Alcohol is at least as satisfactory, and possibly more so, than anhydrous ethyl alcohol for this purpose.

Where shellac is used for stopping out unexposed borders and other areas it will be found that the shellac resist is removed more slowly by Furfuryl Alcohol than by anhydrous denatured alcohol. However, it is not necessary that the shellac be completely removed by the first application of Furfuryl Alcohol, and under normal conditions no shellac will remain after the third application.

Furfuryl Alcohol is believed to be a safe industrial solvent and to be reasonably free from health hazards when adequate ventilation is provided and where the material does not come in contact with substantial

areas of the skin over long periods of time. The manufacturer reports that men who have worked with Furfuryl Alcohol over long periods of time have been examined by physicians and found to show no organic disturbances traceable to Furfuryl Alcohol. Patch tests on the skin of members of the Foundation's Laboratory staff showed no sign of irritation or erythema after two hours exposure.

Acids or strong alkalies should not be added to Furfuryl Alcohol as these materials will cause polymerization and formation of a resinous substance. With strong mineral acids the resinification takes place with almost explosive violence.

Further information regarding the use of Furfuryl Alcohol with directions, may be obtained from Research Bulletin No. 9, "Deep-Etched Aluminum and Zinc Lithographic Plates by the Gum Process," with three supplements, which may be purchased at \$2.00 per copy.

Latest development in the case of the Government against the lithographing industry of the Western states, charging conspiracy to fix prices, etc., is that the lithographers have made a motion claiming that the Government motion is defective. Action on this plea is expected to take at least thirty days. According to attorneys handling the technicalities, it may be several months before the case actually comes to trial and is finally decided.

Executives of Magill-Weinsheimer Co., Chicago, have instituted a study to determine whether women could be used for mechanical jobs in their plant. In the planographing department seven men out of a staff of thirty have joined the U. S. service in the past eight months and a similar

situation prevails in other departments, according to K. E. Barlow, of the research staff. A further drain on all departments is anticipated and, if normal functions are to continue, the company is convinced that women will eventually be required to replace the men.

William E. Rudge's Sons, New York, have announced the election of William Barton Marsh as vice-president of the company. Mr. Marsh has become identified with the graphic arts through his work over the past few years as public relations counsel for American Type Founders, Inc., the Graphic Arts Sales Research Associates and other clients. He is well known as a speaker and writer on such subjects as trends in printing production and the application of modern sales techniques to the printing field. In his new post, Mr. Marsh will assume charge of the Rudge sales organization.

Rapid Copy Service Co., Chicago, recently completed a contract calling for the production of two "Bid Books" by the lithographic process for the Department of Public Works of Chicago's municipal government. The job involved reproduction in black and white of architectural blueprints covering construction details of a new municipal water filtration plant. The books will be used by contractors in bidding on the work. One book numbered 300 pages, the other 350 and each run totaled 1,000 copies. Approximately eighty hours of camera work were required to make the gelatine negatives which had to be used to insure sharp reproduction of all fine lines in the original drawings. Use of planography for a job of this nature was another instance of the efforts Chicago governmental authorities are making to reduce the city's printing bills by wider utilization of the lithographic process.

Luminite Corp., Salamanca, N.Y., manufacturer of lithographic rollers, has recently purchased additional property, including five buildings, as part of an expansion program.

\*Patent has been applied for covering the use of Furfuryl Alcohol in the deep-etch process.

ARE YOU ON OUR  
*Black List?*

ECLIPSE

DEEP-SET BLACK

Don't get us wrong. We mean that as a compliment. We're referring to a list of those outstanding lithographers all over the country who swear by ECLIPSE DEEP-SET BLACK for quality halftone reproduction. These plants are known as producers of top-notch lithography today because one of the very first rules they learned was that it takes a *good* black to produce *good* halftones. With ECLIPSE DEEP SET BLACK they are sure of getting sharp, clean looking halftones having the proper gradation of tone. Join our ever-increasing black list today! Buy Eclipse!

Eclipse Black is only one of the many unusual inks made by this company for the lithographer.

Gaetjens, Berger & Wirth, Inc.

35 York St., Gair Bldg., Brooklyn, N. Y.

538 South Clark St., Chicago, Ill.

## DEFENSE BONDS BUY TANKS



THE TANK is to the Army what the tackle is to the forward line of a football team. It is the "break-through." Head-on, it crashes timber, houses, enemy fortifications. Once it has opened the way, the attacking force follows for the "mopping up."

The Nazis, using these great steel pachyderms which they produce in vast quantities, have been able to break through every fortified line in 14 conquered countries.

In America, the medium-sized tank is the popular size. A medium-sized tank weighs 30 tons. To make it takes as much steel as would be used in 500 refrigerators, as much rubber as goes into 87 average automobile tires.

The planning of a tank takes as great skill as a large scale construction job. One recently converted automobile plant, faced with retooling for tank production, had to put 200 engineers to work in day and night shifts for one month, mapping out machinery requirements and plant layout.

To match the mechanical might of aggressor nations today, America needs thousands of these tanks. They're rolling off the assembly lines now. They cost real money. Every time you buy an \$18.75 Defense Savings Bond or a 10¢ Defense Savings Stamp you give your country money enough to buy a vital part for another new tank.



## Buy DEFENSE SAVINGS BONDS and STAMPS

AT ALL BANKS, POST OFFICES, AND SAVINGS AND  
LOAN ASSOCIATIONS

U. S. GOVERNMENT PRINTING OFFICE 428701

MODERN LITHOGRAPHY

### Hold Educational Program

"Practical Pointers for the Pressroom" was the topic of the educational program heard by the Litho Club of New York at a meeting held last month at the Builders Club, that city. Guest speakers were Theodore Makarius, Brett Lithographing Co., who described "The Olsen Mark Registering Device;" Herbert Cole, Craig Corp., who spoke on "The Craig Dri Spray;" and William Gegenheimer, William Gegenheimer, Inc., heard on "The Ink Fountain Agitator." The New York club held its annual dinner dance at the Hotel Roosevelt on February 7th.

### Gray Divides Company Control

James H. Gray, founder and president of James Gray, Inc., lettershop and lithographing plant, New York, has announced that he has relinquished control of the business by presenting his four key executives with equal shares in the enterprise. The participating executives are Jack Gold, vice-president in charge of production; W. MacF. Beresford, vice-president in charge of sales; Edward N. Mayer, Jr., secretary; and H. Leslie Ward, treasurer, all of whom have been with the company for many years. Mr. Gray will continue to serve as president. Mr. Gray entered the lettershop field in 1919. Complete photo offset equipment was purchased and installed in 1931 in a special plant under the name of Gray Photo Offset. In 1935 the plant was moved to its present location at 216 East 45th Street, New York, where, as James Gray, Inc., both lettershop and lithographing facilities and a complete printing plant occupy two entire floors.

### Hold Forum on War Business

The Young Lithographers Association, New York, held a round table discussion on ways of getting new business to replace that which may be temporarily lost due to the war effort at a dinner meeting held last month at the New York Advertising Club. It was pointed out that many advertisers who use lithography have been forced to change their promotional programs due to material and labor shortages and



**JACK BEIERWALTES**

... co-salesmanager of the E. J. Kelly Co., printing ink manufacturers, of Kalamazoo, Michigan, who has been appointed publicity chairman for the International Association of Printing House Craftsmen Convention being held in Grand Rapids, Michigan, August 9, 10, 11, and 12.

conversion to war production. Suggestions as to how the lithographer can adjust his business to these new conditions were discussed by the members.

### PAC Opens Third Year

The Printing and Advertising Clinics, sponsored by General Printing Ink Corp., New York, opened their third year of activity on February 17th with a forum on the topic, "Consumer Advertising in a War Economy," held at the Port of New York Authority Building, New York. This clinic was a departure from previous meetings in that it was conducted entirely by women in business. Program chairman was Mrs. Lucy R. Milligan, secretary of the Home and Industry Committee of the National Association of Manufacturers, and the guest of honor was Mrs. Anna Steese Richardson, consultant on consumer problems, printing house of William E. Rudge's Sons. Other speakers included Miss Mabel G. Flanley, director of consumer relations for the Eastern Division of the Borden Co., who discussed "Priorities and Substitutes;" and Mrs. Barbara Daly Anderson, director of The Parent's Magazine Consumer Service Bureau, who spoke on "Nutrition and Prices." PAC has also announced plans for a clinic

devoted to "Advertising in War" to be held in April. British, Canadian and American authorities will discuss this subject from their respective viewpoints. Names of the speakers and other details will be announced later.

### Voice Heads Red Cross Drive

Sidney P. Voice, vice-president of Consolidated Lithographing Corp., Brooklyn, has been appointed chairman of the New York and Bronx lithographic division of the American Red Cross's war fund drive, sponsored by the Young Lithographers Association, of New York City. Others in the lithographic field who will assist in the campaign are William Katz, also of Consolidated; John Jackson, National Process Co.; Jack Kronenberg, S. D. Warren Co.; George Goldsmith, *National Lithographer*; Alfred E. Rode, Jr., Rode & Brand; Jacques Tisne, Schlegel Lithographic Corp.; Robert Shamback, Jr., American Label Co.; Robert R. Heywood, Jr., R. R. Heywood Co., and Mark Hermer, Reehl Lithographing Co.

### Discuss Conversions

The conversion of process color engravings to lithographic use was the topic of discussion at a meeting of the Litho Club of Philadelphia held last month at the Poor Richard Club, that city. Theodore E. Greifzu, Sr., Graphic Arts Engraving Co., was the guest speaker.

### Join Rathbun & Bird

Jack Doyle, formerly on the New York sales staff of Vandercook & Sons, and Sydney Smith, a former printing salesman, joined the sales staff of Rathbun & Bird Co., New York, last month.

### John H. Holland Dies

John H. Holland, 63, veteran poster artist and a familiar figure in Chicago lithographic circles for forty years, died as the result of a heart attack on January 15. Mr. Holland had been employed by various Chicago litho firms throughout his long career and his latest connection had been with Central Printing & Lithographing Co.



# More Speed to the Pressroom

with the new

## CRAFTSMAN Offset Precision Tables

.....



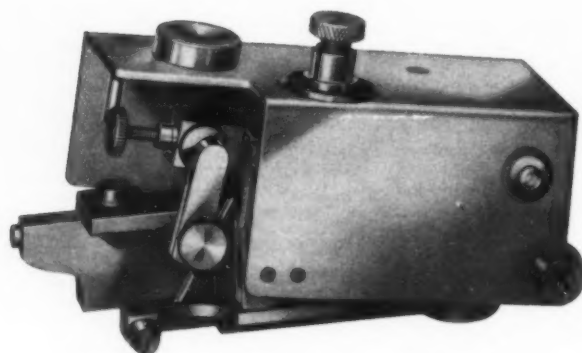
**D**ESIGNED specifically for the offset printer, this new Craftsman Precision Offset Table provides every facility for the platemaker to perform all preparatory operations—such as copy, multiple and color layouts; combination and cross-rule forms; masking and opaquing; register and mechanical check-up work—all with speed and accuracy.

Glass plates one-eighth of an inch in thickness can also be used on the "Craftsman." Whatever the medium of reproduction material may be, the same precision is constant and unvarying, by means of the automatic spacing mechanism, the double vernier and ruling stops.

In a fraction of the time consumed by old hand methods, the Craftsman Ruling Device rules a thin or heavy line over the surface of the sheet (glass, paper, negatives or plates).

This new table is aptly named "Precision"—and here is why: two special features allow you to draw as many as 72 lines exactly a point apart almost with your eyes closed . . . or complicated cross rule forms on a negative, with just one finger. That is what we call precision.

The Automatic Spacer is combined with the vernier on each straightedge. The double spacing device is graduated to 64ths and 72nds of an inch. We can also furnish scale in 50ths or any other sub-division to suit individual needs. The full range of the Spacer is one-half inch. By double tripping the lever, an increased range is secured.



**THE CRAFTSMAN RULING DEVICE**—the product of years of research and testing—is a slidable ruling carriage with pen, pencil and stylus ruler, each with individual holder, which works at the correct ruling angle. Two stylus points are provided (.003" for light lines, .010" for heavy lines). Finger pressure depresses the stylus to the proper position, and adjustment tension prevents cutting below the emulsion. This ruling device is standard equipment for both Offset and Photo-Lith Tables.

### CRAFTSMAN PRECISION PHOTO-LITH TABLE

The Craftsman Precision Photo-Lith Table, designed especially for the offset craftsman, is an indispensable aid in the various painstaking and accurate operations necessary in the preparation of the offset plate. This table is the most self-contained equipment of its kind for producing in one instrument the many accurate operations essential to precise platemaking. Operations with this table include: line-up, registering, negative and plate ruling, copy layouts, masking, stripping and opaquing, retouching, register marks—and all steps essential to check-up work in process.

*Write For Full Information—*

## THE CRAFTSMAN LINE-UP TABLE CORP.

49-59 RIVER STREET

WALTHAM, MASS.

MODERN LITHOGRAPHY

## NEW EQUIPMENT AND BULLETINS

### **To Conserve Chromium and Lead**

Champion Paper & Fibre Co., Hamilton, Ohio, has announced that for the duration of the war it will discontinue the use of yellow in all of its printing in order to save valuable chromium and lead from yellow inks. The company points out that although yellow has always been a popular color in printed matter, it believes that it and many other users of printing can utilize other colors just as effectively and thereby save large quantities of chromium and lead for essential war use. This conservation measure will also make possible the continued use of yellow inks for more important commercial printing such as labels and packages where the color is an important item in identification.

### **Agfa Ansco Marks 100th Year**

Commemorating the 100th anniversary of its founding, Agfa Ansco, Binghamton, N. Y., has just issued a handsome booklet which traces in words and photographs the history of the company from its establishment in 1842 to the present day. The booklet describes how Edward Anthony, a young civil engineer who studied and practiced the daguerreotype process in his spare time, established the daguerreotype supply house at 308 Broadway, New York, which was the forerunner of Agfa Ansco. Mr. Anthony conducted a portrait studio in Washington, D. C., in partnership with J. M. Edwards, and it was the success of this studio and the fact that new studios were springing up in all parts of the country that prompted him to go into business as a dealer in photographic materials. In 1852 Henry T. Anthony joined the firm his brother had founded and the following year the Anthonys conducted the world's first photographic contest. During the Civil War, the firm, now known as E. and H. T. Anthony & Co., supplied photographic ma-

terial to Matthew Brady, the famous war photographer, and the staff he employed to cover the war on various fronts.

In 1902 the firm merged with the Scovill and Adams Co. to form the Anthony and Scovill Co., and the main manufacturing activities were transferred to Binghamton, N. Y. Five years after the merger the name of the company was changed to Ansco, the "An" representing the first two letters in the Anthony name and the "sco" representing the first syllable of Scovill. A merger with the American interests of Europe's largest film organization in 1928 gave the firm its present name of Agfa Ansco. That same year the company erected the building at Binghamton which is considered one of the world's most modern film plants.

Touching also on the growth and development of photography in the United States, the Agfa Ansco booklet tells of the popularity of the stereoscope and its third-dimensional photographs; the invention of roll film in 1887 by Hannibal Goodwin; development of aerial photography during World War I; and the introduction of the miniature camera in 1928. The booklet comes up to the present day with a group of photographs showing the use of photography by the army and navy. Concluding pages of the presentation are devoted to a photographic trip through the Agfa Ansco plant showing various operations in the manufacture of photographic film and printing papers.

### **Defines Requirements for Offset**

"How Will It Print By Offset?" is the title of a new book issued by S. D. Warren Co., Boston, which was introduced at two dinner meetings held by the company at the Vanderbilt Hotel, New York, earlier this month. The purpose of the book, as outlined in the preface, is to

define the characteristics that make pictures susceptible to effective reproduction so that users of lithography can plan for, and secure, reproductive copy that will permit lithographers to apply craftsmanship with effect. Comparative exhibits are presented in the first section of the book to exemplify common causes of poor reproduction of photographs and to suggest means for eliminating the causes when the original photographs are made. The photographs in the second section demonstrate the method of putting sparkle into reproductions or of keeping it out if a softer effect is desired. Since various paper surfaces endow offset reproductions with varying degrees of sparkle, lithographed reproductions of the same subject on different paper surfaces are presented for comparison in the third section of the book. A paragraph of type is included beneath each reproduction to permit comparison of the effect of paper surface on the color and sharpness of lithographed type masses. A photograph lithographed in four colors is presented in the fourth section on six different textures of paper in order to show how brilliance of color is influenced by paper surface. The concluding demonstration in the book is a series of varnished exhibits of offset lithography.

### **LTF Issues Annual Report**

The Lithographic Technical Foundation, New York, has just issued an annual summary of its progress in graphic arts education and research for 1941. The bulletin points out that considerable advancement has been made in the cooperative studies on lithographic paper conducted by the Foundation and the National Bureau of Standards and it is hoped that a research paper can be issued shortly covering the work in this connection over the past two and one-half years. Studies of drier con-

## IT ALL "ADDS UP" TO HALFTONE OFFSET



Ponder all you please.  
Look at it from all sides.  
You won't find a better  
offset sheet than Halftone,  
which is midway between  
offset enamel and regular  
offset. In dull or gloss.

Clear detail . . . solids free from  
mottling or muddy effects.  
Easy to handle on press.



### GREETING CARD PAPETERIE

*Embossed and Decorated*

*Makers of Quality Offset,  
Lithograph and Book Papers*



4 BUY WORD FOR HIGH-GRADE PAPERS

## CUT YOUR BLANKET COSTS



### LITHO-KLEEN Concentrate

*Preserves that "new blanket" texture,  
resilience, and ink-receptive quality.*

PREVENTS TACKINESS AND GLAZE

LTF Litho-Kleen is a new and improved blanket  
cleaner and preservative developed by the re-  
search laboratories of the Lithographic Techni-  
cal Foundation. To prepare it, simply mix  
LITHO-KLEEN Concentrate with an equal  
amount of D. C. naphtha or benzene.

—also—



### CHEMICALS for

DEEP-ETCH PLATES  
ALBUMIN PLATES  
PLATE ETCHES  
FOUNTAIN ETCHES

Manufactured by The Coleman & Bell Company  
Norwood, Ohio, U. S. A.

All LTF Products are tested by Research Laboratory  
of Foundation before being released for sale.

*Distributed by*

The California Ink Company, Inc.  
The Fuchs & Lang Mfg. Co.  
(Division of General Printing Ink Corp.)

International Printing Ink  
(Division of Interchemical Corp.)

Sinclair & Valentine Company  
Sinclair & Valentine Company of Canada



centration, effects of temperature and relative humidity, and effects of certain paper properties, have been completed, according to the report, for black and a limited number of colors, and a Research Bulletin is now being written on this subject. Further studies of these variables in connection with a large number of colors are being made. Developments in the research on halftone reproduction during the past year are reported as being very promising. It appears that control of tone values can be accomplished by a relatively simple practical method. A patent application is being made to cover the method developed and it will be made available to the trade at the earliest possible date.

The bulletin also reports that the Foundation's research on printing surfaces has been rendered somewhat uncertain by shortages of metals and certain platemaking chemicals. It has been found necessary to explore the field of substitutes for gum arabic, alcohol and other materials and intensive work is now under way in several directions. This research includes the testing of possible substitutes for anhydrous alcohol in the making of deep-etch plates and development of a satisfactory deep-etch process that does not require the use of alcohol or similar solvents of which a shortage exists or is likely to exist during the emergency. Early in 1941 arrangements were made with the Coleman & Bell Co., manufacturing chemists, to prepare and market the Foundation's platemaking solutions in ready-to-use form under the trade mark "Standardized LTF Chemicals." Various distributors throughout the country are now in a position to supply these chemicals.

The Foundation also reports considerable progress in its educational efforts over the past year. The bulletin cites an increase of 67% over 1939-40 in the number of employees enrolled in LTF courses and an increase of 34% in the number of firms served. It is also pointed out that almost 50% of the students enrolled in lithographic courses offered throughout the United States were members of the classes conducted

under the immediate direction of the Foundation. Courses were offered during 1941 for the first time in the cities of Baltimore, Hartford and Washington.

#### **Pitman Issues New Folder**

Harold M. Pitman Co., Jersey City, N. J., has issued a new folder entitled "Technical Bulletins of Pitman Special Processes," which contains directions for the use of the company's most popular proprietary chemicals. Detailed instructions are given for the deep-etch and albumen processes, the wet-plate dot-etching process and several others. The company plans to issue additions to the folder from time to time as new processes are developed as a result of research and experimentation which is now being done. Copies available on request.

#### **Explains Copy Preparation**

Lithographers doing school annual work should find of particular interest a booklet entitled "Simplified Offset Copy Preparation," just issued by George A. Whiting Paper Co., Menasha, Wis. This is a 16-page instruction book for school annual production staffs showing them, step by step, just how to prepare their copy for the offset camera. It illustrates the types of drawings, photographs and typography which are good or bad from the standpoint of lithographic reproduction, explains which materials are necessary for offset copy production and makes suggestions for a proper staff organization. Some of the pages which the school staff should find particularly valuable are those which explain how to figure sizes for copy and enlargements of photographs and drawings and how to figure the area taken up by various sizes of type. The booklet also describes the preparation of photographs and pen drawings for reproduction and explains some of the unusual layout effects that can be obtained with the lithographic process. The lithographer should find this booklet a valuable one to present to school annual customers since it will give the buyer of lithography a better understanding

of the process in relation to his particular needs. Copies of the booklet are available on request.

#### **Westvaco Issues '42 Calendar**

West Virginia Pulp & Paper Co., New York, is now distributing its handsome 1942 calendar entitled "The Clermont Making a Landing at Cornwall on the Hudson in 1810." The illustration, which has been reproduced in full color, is by the American artist, Edward Lamson Henry. The popular format of the twelve months on one sheet beneath the illustration has again been used.

#### **New Du Pont Calendar**

The annual safety calendar, just issued by E. I. du Pont de Nemours & Co., Wilmington, Del., carries twelve paintings depicting historical subjects lithographed in full color. The paintings are the work of Stanley M. Arthurs, Gayle P. Hoskins, Clyde O. DeLand and Frank E. Schoonover, and were made especially for the calendar. A booklet giving a thumb-nail sketch of each of the artists and explaining the historical significance of the paintings is being distributed with the calendar. Each page of the calendar bears a safety slogan and two pages of first aid instructions are included at the back for handy reference. The calendar was lithographed by Rogers-Kellogg-Stillson, Inc., New York.

#### **Will Dispose of Litho Stones**

The Senefelder Co., New York, is distributing a leaflet pointing out to lithographers that it is in a position to assist in the disposal of obsolete lithographic stones which they may have on hand. Since the rotary offset press has replaced almost entirely the flatbed stone press in the present day lithographic industry, the use of lithographic stones is now confined exclusively to art work or special lines of lithographic work. The company states that it has established connections with lithographic centers where these stones might be utilized and, therefore, will be able to render advice to lithographers who have stones they wish to dispose of. Copies of the leaflet available on request.



**famous names in ink history**

*Huan Tsung, Emperor of China from A. D. 713 to 755, was an accomplished ink maker and sent gifts of ink of his own making to several of the Imperial colleges. This was not unusual since ink makers during this period were treated with deepest respect and accorded the highest honors and usually became men of position and renown.*

No less unusual is the respect which ink manufacturers have earned for their contribution to the graphic arts today. The H. D. Roosen Company for over half a century has manufactured lithographic inks which have helped lithographers establish and maintain reputations for work of the highest quality.

That this contribution by H. D. Roosen to the progress and stability of the lithographic industry has earned the respect of discerning craftsmen everywhere is borne out by the ever-increasing use of ROOSEN LITHO INKS wherever lithography is produced. Lithographers who know quality best buy Roosen.

**H. D. ROOSEN COMPANY**

Brooklyn, N. Y.: Ft. of 20th and 21st Sts.

—Branches—

Chicago: 623 So. Clark Street  
Baltimore: 3432 Kenyon Ave.

Boston, Mass.: Kendall Sq. Bldg., Cambridge  
Mexico, D. F.: 2a Calle, De Victoria 67

Havana, Cuba: Inquisidor No. 513-515  
South American Agencies

## SERVICE PLUS QUALITY!

HAS MADE OUR PLANT THE WORLD'S LARGEST

**WE SPECIALIZE IN  
SMALL PLATES**

ALSO REGRAINING MULTILITH

**ZINC and  
ALUMINUM PLATES**

UNGRAINED—GRAINED—REGRAINED

**LITHOGRAPHIC PLATE GRAINING CO.  
OF AMERICA INC.**

37-43 BOX STREET., BROOKLYN, N. Y. EVERGREEN 9-4260, 4261

### Offset Press Operation

(from page 47)

takes two men to change the reset plate dampers properly. All dampening rollers, when rebuilt, should be of a standard diameter. This will insure minimum adjusting. When new dampening rollers have been placed in sockets, insert a pin into the bottom of lower socket and push the pin toward the plate, keeping the dampening roller parallel until it comes to a "kiss contact" with brass or aluminum agitating roller.

The setting described in the previous paragraph also applies to the setting of the top dampening roller, with this exception: insert the pin into the top of the socket and push the pin toward the plate. To complete the setting of the dampers, start the press running, drop the dampening rollers on the plate, adjusting the bolts so that a slight bump can be felt on the sockets, caused by the front edge of the plate. When the above suggestions are followed conscientiously the author feels confident that most troubles of this nature will cease to cause unnecessary delays.

### Offset Paper at Work

(from page 49)

urement of the per cent of daylight reflected from any given sheet of paper. The number zero would indicate actual blackness, because all of the light would be absorbed into the sheet. No paper could achieve 100 per cent brightness as some of the light is bound to be absorbed. The brightest paper of which we happen to have actual laboratory records is the highest grade enamel book paper which showed a brightness number of 87. The typical "B" grade book or offset paper would have registered around 75, and the highest grade bond paper about 86.

THE paper industry has not established any standards for brightness except in the sulphite bond and ledger papers. Paper Trade Practice No. 1, adopted under NRA in February 1934, prescribed the following scale:

No. 4 Unwatermarked Sulphite Bond—Brightness 74 maximum.

No. 3 Unwatermarked Sulphite Bond—Brightness 77 maximum.

No. 2 Watermarked Sulphite Bond (Flat Finish)—Brightness 80 maximum.

No. 1 Watermarked Sulphite Bond (Flat Finish) Brightness over 80.

By comparing the above specifications with the "ceilings" recently established for paper brightness (which automatically control the amount of chlorine permissible to use), with the present prescribed "brightness numbers," we can get a relative idea of the effects to be expected.

The heavier restrictions have been placed upon grades in which brightness is not a very essential property—papers used mostly for mechanical purposes. From many of these grades all pulp bleached with chlorine has been entirely eliminated.

Thus without jeopardizing the more essential properties of printing papers, the restrictions placed upon the use of chlorine are expected to reduce by one-half the total amount of this essential chemical formerly consumed in the paper industry. This must be willingly accepted as one contribution toward the military victory upon which all democracies depend.

### Announce Falco Blue Print Powder

The Fuchs & Lang Manufacturing Co., New York, has announced a new Falco Blue Print Powder which is said to be especially useful for deep-etch multicolor work, although it may also be used for albumen plates. In a leaflet issued by F. & L., application of the powder is described as being desirable for flats where much stripping for close register work is necessary. Another advantage of the powder which is pointed out is that it requires but a few moments to prepare for use and once dissolved will maintain its sensitivity for well over a week.

### Paper Groups Meet Feb. 16-20

The American Paper & Pulp Association, the National Paper Trade Association and the Technical Association Paper & Pulp Industry are holding their annual meetings at the Waldorf-Astoria Hotel, New York, February 16 through 20.

### As Cannery Meet

(from page 37)

job carrying air raid instructions has been turned out for use on the west coast, Curtis Wright, Jr., Chicago district sales manager, stated. William J. Reade, San Francisco sales manager, and Charles W. Bowen, of the New York office, assisted Mr. Wright. "Appointment Books," spiral bound and illustrated with night views of the Schmidt plant were distributed to visitors.

Stecher-Traug Lithograph Corp., emphasized in its sales talks the need for high class can labels to represent both the rising commodity prices and the demand for better quality food products. Hal W. Johnston, vice-president and general sales manager, of the Rochester office, was on hand to re-enforce activities of Walter A. Stewart, Chicago sales manager, and his assistants.

Lehmann Printing & Lithographing Co., San Francisco, showed a large line of labels for canners and grocers, including an assortment of instantly available stock labels, appealing to the smaller canning establishments or private label users, after being suitably imprinted with company names. Al Weinstein was the Lehmann representative at the show.

Rossotti Lithographing Co.'s sales delegation was headed by vice-president Charles C. Rossotti and Joseph C. Molitor, sales promotion manager, from the North Bergen, N. J., plant who assisted Harry E. Watson, Chicago-Midwest district manager and Ray Shearman, Baltimore member of the sales staff. The company on January 26 was host to the National Macaroni Manufacturers Association, with a cocktail party at the Congress Hotel. Kodachrome labels are featured in the company's line, Mr. Watson said, with a domestic science expert employed to prepare all foods and set the table for the photographic work.

Carroll E. Lindsey, head of the Lakeland Highlands Canning Co., Highland City, Fla., was elected president of the Cannery Association for 1942.



# RELIABLE LITHOGRAPHIC PLATE CO., Inc.

*The Pioneer Plate Grainers of America*

ALL PLATES  
INCLUDING THOSE  
REGRAINED FOR  
MULTILITH  
ARE MARBLE  
GRAINED

**"R**ELIABLE" is far more than just part of our name. It means to our customers that our plates can be depended on to give first-class results because from start to finish the graining is handled by experts of long experience. Our plates are made right to work right—they are reliable!

We carry a full supply of Zinc and Aluminum Sheets for Offset, Rota-print Presses, in fact for all the lithograph trade.

MILL  
SELECTED  
METAL  
USED  
EXCLUSIVELY  
(MADE IN U.S.A.)

*A trial order should "sell" you our services and products.*

## RELIABLE LITHOGRAPHIC PLATE CO., Inc.

INCORPORATED 1916

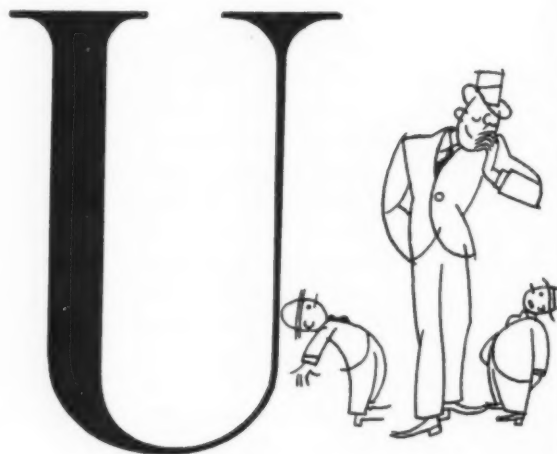
17-27 Vandewater St. and 45 Rose St., New York, N. Y. • Phone: BEekman } 3-4542  
} 3-4531

## We Thought Ahead in Your Interest

Before you faced some of the problems which may be worrying you today . . . the Johnson laboratories were carrying on the experiments which assure a supply of Johnson Inks that will enable American lithographers to produce work of the highest quality despite necessary changes in other basic materials.

**CHARLES F. Johnson**  
AND COMPANY  
GOOD INKS SINCE 1804

Philadelphia • New York • Chicago • Boston • St. Louis • Cleveland  
Detroit • Baltimore • Kansas City • Pittsburgh • Atlanta • Dallas



... stands for Unusual  
The one that stands out  
Of course it's a KIMBLE  
There's never a doubt.

*Motors by* **KIMBLE**  
Distributed by **AMERICAN TYPE FOUNDERS**  
Branches and Sales Agents in 25 Cities

## War-Time Shop Strategy

(from page 32)

unable to rebuild presses. They will supply necessary parts, and if opportunity permits, will overhaul certain parts, such as ink fountains, and re-grind cylinders.

In connection with individual maintenance operations, let us mention Aquatex and Dampabase. As far as I know, there is no competing product, and it's miles ahead of the hand-made damper coverings. Blanket life can be extended by the exclusive use of a mixture of one of the alcohols, and one of the chloroethers as a blanket wash. It seems that the unsaturated hydrocarbons present in many gasolenes raise hob with the rubber in time. Ink rollers are frequently neglected, but are important enough to deserve a whole chapter.

There are two types of rollers used in most presses at the present time, rubber and vulcanized oil. Rubber can still be obtained at this date for replacements by use of a priority rating. There seems to be an ample supply of oils for the vulcanized oil roller at the present time and no scarcity seems in sight for this material. In any event the greatest care should be taken to insure their maximum life.

One of the first requisites is careful handling and setting. The rollers should be set as lightly as possible, consistent with good results. Extreme care should be taken in removing rollers from the press to see that they are not bumped in any way. Bumping the roller itself might possibly damage the material, whereas bumping the stocks might put them out of true, and as a consequence an even setting would not be possible. In this case it might be necessary to pull down too hard on the ends to make the center print and cracking on the ends of the roller will result.

Whenever washing up or cleaning, the ends of the roller should be kept free of excess ink which at times has a tendency to pile up there. Rollers should be washed thoroughly at the end of a run or at the end of a day's work. In spite of this regular wash-up an accumulation of dried ink may

eventually pile up on the roller. If left to accumulate it will in time crack and cause the roller itself to crack and pick off. Small particles of the roller material, picked off thus, may impair the quality of an otherwise perfect ink. Both types of rollers should be removed from the press at least once a month and while supported in V blocks have this film removed by one of three methods:

### Paste Cleaner

For cleaning both rubber and oil rollers. Using rubber gloves apply a small amount of the cleaner to the roller with a moistened cloth. Rub until the paste cleaner is uniformly distributed over the face of the roller. Allow to stand until dry. Rinse roller in clean water.

### Powdered Pumice and Kerosene or Denatured Alcohol

For oil rollers. Moisten a cloth with alcohol or kerosene, dip in fine powdered pumice and rub the surface briskly. Rubbing is continued until the film is removed and the actual surface of the material is exposed. The cloth should be kept quite wet. After cleaning, wash off with clean water or regular wash-up.

### Lye Bath

For rubber rollers. Can be used with care on oil where film is very thick. Dissolve completely four teaspoonfuls of ordinary household lye in a pint of water. Using rubber gloves apply lye solution by means of a cloth or rubber dauber and allow to remain on roller until ink is dissolved. Ten minutes at the most is sufficient time to dissolve a very heavy film of dried ink. Immediately wash off the roller with clean water and then follow with regular wash-up material.

Certain wash-ups on the market if used to excess will eventually render the rollers unfit for use. Solvents containing coal tar derivatives such as Bensol, Toluol, etc. and Chlorinated Solvents such as Carbon Tetrachloride, Ethylene Dichloride, etc. should be used *very sparingly*, if they are used at all.

Kerosene, Gasoline and Benzine are good as a daily wash-up for vul-

canized oil rollers. Naphtha, Alcohol or a mixture of these two can be used for daily wash-up for rubber rollers. After using regular wash-up solution in a wash-up machine, running cold water through helps rid the rollers of some of the gum which has accumulated on them. Squirt it on rollers from the can. Care of spare rollers, either vulcanized oil or rubber, involves their storage away from sun or heat, preferably in cool place—not-too-dry, for example: an unheated basement. Spare rubber rollers should have their surfaces dusted with talc and then be covered with paper.

**F**OUR hints for longer plate life are: shallower etch on deep-etch plates; less pull in the clamps of the press; care and cleanliness in preparing plates for storage; cleaning off old work without regraining, a stunt we are trying on our short run work.

Chemical substitutes are becoming increasingly available, and should present no problem other than inducing a willingness to try something new. A splendid morale builder has come forward in the form of adequate fluorescent lighting. Pressmen are given the possibility of floods of almost daylight illumination, at a very slight decrease from the most efficient white color of this light source. Current cost per lumen is very low compared to Mazda.

And finally, continue to keep abreast of the situation by perusing your trade papers. The official organ of this association, *MODERN LITHOGRAPHY*, is packed with ideas for weathering the crisis, as are many other good trade papers. And those of you who are privileged to do so, take advantage of the guidance offered in the confidential bulletins to members of the National Association of Photo-Lithographers.

### Installs New Press

Central Printing and Lithographing Co., Chicago, installed a new Harris 42 x 60 offset last month. The company specializes in theatrical and commercial posters and window displays. H. A. Stebner is superintendent of the plant.

# SAVE

*Plates*

With "CLEAN-O-LITH"

"Clean-O-Lith" is a recently developed chemical designed to remove images from plates without regaining. One gallon will clean about 200 plates 10 x 15. One user reports he has cleaned his plates more than 25 times without regaining. Does not harm the grain. Use your plates over and over again.

"Clean-O-Lith" will save that scarce metal and effect a real economy in regaining cost. \$12 per gallon, send your order today or write for further particulars.

Litho Plate Cleaning Co.  
904 Pease Street  
Vernon, Texas

The Clean-O-Lith Co.  
489 Fifth Avenue  
New York, N. Y.

*There's a reason!*

There's a reason why the lithographer will prefer one ink to another. Both may look alike on the finished page, yet one will offer economies of increased mileage, trouble-free operation on the press, greater permanence, or other points of superiority. Sometimes that invisible difference in quality of lithographic inks is the factor with which the careful buyer is most concerned. It is the factor that has been responsible for the increasing acceptance given to inks made by Bensing Bros. & Deeney.

**BENSING BROS. & DEENEY**

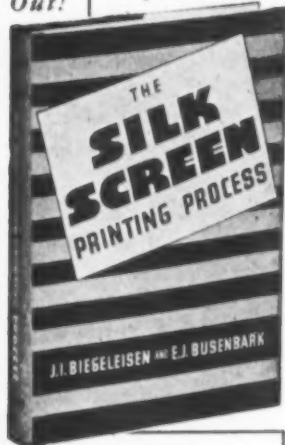
401 N. Broad St.

Philadelphia, Pa.

330 S. Wells St., Chicago, Ill.

Just  
Out!

Up-to-date **SILK SCREEN**  
Methods



These 11 chapters  
answer all your  
technical questions

1. Introduction
2. Equipment
3. Printing Mediums
4. Printing Surfaces
5. Stencil Making Methods
6. Make-ready and Printing Methods
7. Finishing
8. Preparing Drawings for Silk Screen Printing
9. Estimating
10. Shop Management
11. Recent Developments

Improve your results with the many tips on latest methods, equipment and materials given in this

New Enlarged  
Second Edition of

Biegeleisen and Busenbark's

**SILK SCREEN  
PRINTING  
PROCESS**

206 pages, 90 illustrations, \$2.75

This is a complete, detailed, up-to-the-minute manual of silk screen printing, telling how to perform every step in all types of work, from simple one-color cards, to textile decorating, glass etching, and printing on unusual materials.

SEND CHECK WITH ORDER TO  
**MODERN LITHOGRAPHY, 254 West 31st St., N. Y.**

# GOERZ

**American-Made  
LENSES**  
for Photolithography  
"The Most Exact Tools"



**ARTAR APOCHROMAT**

f:9 to f:16

The ideal lens for color separation negatives. Color-corrected to produce images of the same size, to correctly superimpose in the finishing process. Focal lengths: 9 1/2 to 70 inches. New sizes 4" and 6" for color separation blowups from 35 mm. Kodachrome.

**GOTAR ANASTIGMAT**

f:6.8, f:8, f:10

Assuring freedom from distortion, this is the ideal lens for intricate subjects requiring an intense clarity of definition. Focal lengths: 8 1/4 to 24 inches.

**GOERZ PRISMS**

of the Highest Accuracy — For reversed negatives to save stripping the film, and reduction work.

For FREE literature address DEPT. P-L 2

**C.P. GOERZ AMERICAN OPTICAL CO.**  
317 EAST 34<sup>TH</sup> ST. NEW YORK CITY

**American Lens Makers since 1899**



## Job Control

(from page 30)

operation and information thus obtained may be used to govern future estimates.

As jobs are billed, they are checked off the numerical *Office Control File*. The problem of controlling errors is, of course, a prodigious one. A system of checks and double checks is the only sure way of keeping them at a minimum, and of preventing their appearance in the finished job.

When a paste-up on a job has been checked by the customer, all corrections or changes should be indicated on the transparent tissue overlay flap. As the corrections are made on the paste-up, the artist should check them off on the tissue flap with a colored pencil, and the paste-up resubmitted for the customer's O. K. His final paste-up O. K. should appear on the tissue flap and be preserved in the job envelope.

After paste-up has been shot and halftones stripped in, a contact print of the negatives should be made on

blue print paper and again submitted to the customer for final O. K. before plating. This gives the customer a final chance to check position of halftones, general appearance, register of color, etc. Two-color jobs may be proofed on blue print paper by varying the length of exposure on the two negatives. This blue line proof must carry the customer's O. K. before the plates are made and is also preserved in the *Shop Ticket* envelope. This blue line print can be trimmed and folded to serve as a sample for the pressroom and bindery. This procedure cuts errors in the finished job to a minimum.

Those problems of plant control such as administration, sales, finance, etc., are not a part of this particular discussion. We are, however, all cognizant of the fact that unless definite plans for production control are formulated and made effective, management ceases to manage, and, fretting and worrying, the directors wonder where their plant is going to take them next.

## How Research Can Improve Inks

(from page 34)

and drying compounds. Those we employ today have been used for years and they were fairly satisfactory with the older, slower speed offset presses. Today, however, with our modern, high-speed presses all the chemical actions before mentioned operate to an enhanced degree. It is possible that there are metallic compounds, other than those of manganese, cobalt, lead, iron or zinc that can be used as driers, and it is quite possible that organic compounds containing no metals may be as effective as metallic compounds. The chemistry of driers is not well understood and a research program on driers and drying compounds should be well worthwhile. One of the headaches of the lithographic pressman is the slowness with which many inks dry and especially is this true on coated stocks, and ordinary stocks in damp weather, making it almost imperative that some spray device be attached to the press. At best this is a subterfuge. The possibility of almost instantaneous drying of inks through the catalytic effect of radiant energy should be investigated.

From the standpoint of the ink manufacturer these are the things he should keep in mind when he formulates a lithographic ink:

Form No. 13,  
8½ x 14,  
Pink; Back  
of Shop  
Ticket,  
(Form No. 5).

1. Is adequate information given the user about the quantity and type of drier added to the ink at the time of manufacture?
2. Is the pigment affected by any fountain solutions likely to be used on the press?
3. Are the ink extenders of such a type as to be trouble proof when exposed to the action of the plate metals and fountain solutions on the press?
4. Is the ink compounded for use on glossy paper or for only dull surface stocks?
5. Is the ink suitable for use on multicolor presses?
6. Has the ink been tested by drying it under a wide range of atmospheric conditions and on papers having a wide range of paper moisture content?

(Turn to page 77)

COST RECORD									
ART DEPARTMENT									
MATERIALS					LABOR				
Quantity	Size	Item	Unit Cost	Amount	Oper	Hrs	Unit Cost	Amount	
6	20 X 25	Printed Board	32	1.92	2	8	1.75	14.00	
6	20 X 25	acetal sheets	75	4.50	5	8	1.00	8.00	
					6	4	1.00	4.00	
					8	7	1.50	11.25	
Total Material				6.42	Total Labor				37.25
					Total Materials				43.67
					Total Cost				50.09
CAMERA AND PLATE DEPARTMENT									
MATERIALS					LABOR				
Quantity	Size	Item	Unit Cost	Amount	Oper	Hrs	Unit Cost	Amount	
12	20 X 24	Line Films	1.00	12.00	12	2	1.25	15.00	
		Chemicals		1.00	12	10	1.25	15.00	
		Paper Negatives		1.00	11	16	1.10	17.60	
3	18 X 24	Half Tones	1.00	3.00	15	10	1.25	18.75	
2	8 X 10	Contact Prints & Reviews	1.50	3.00					
5	4.5 X 8	Plates	4.00	20.00					
5	4.5 X 8	Plates & chemicals	4.00	20.00					
Total Material				28.00	Total Labor				51.35
					Total Materials				28.00
					Total Cost				79.35
PRESS DEPARTMENT									
MATERIALS					LABOR				
Quantity	Size	Item	Unit Cost	Amount	Oper	Hrs	Unit Cost	Amount	
100	10 X 14	Blank Off	26.45	2645.00	21	4	1.35	28.35	
2	10 X 14	Blank Off	26.45	52.90	23	2	1.35	31.05	
300	10 X 14	Blank Off	26.45	7935.00	22	3	1.35	29.70	
Blank Total				1667.90	Labor				89.10
					Total Materials				1667.90
					Total Cost				1757.00
BINDERY DEPARTMENT									
MATERIALS					LABOR				
Quantity	Size	Item	Unit Cost	Amount	Oper	Hrs	Unit Cost	Amount	
100	10 X 14	Blank Off	26.45	2645.00	21	4	1.35	28.35	
2	10 X 14	Blank Off	26.45	52.90	23	2	1.35	31.05	
300	10 X 14	Blank Off	26.45	7935.00	22	3	1.35	29.70	
Blank Total				1667.90	Labor				89.10
					Total Materials				1667.90
					Total Cost				1757.00
<p>Price Quoted \$973.00 + \$2400 Extras</p> <p>Total Cost \$1138</p> <p>Profit \$185.62</p>									

# DRISCOLL'S

*Coverwell*  
**INKS**

◆  
**OFFSET**  
**LETTERPRESS**  
**ANILINE**  
◆

**MARTIN DRISCOLL & CO.**  
610 FEDERAL STREET • CHICAGO, ILLINOIS  
BRANCH PLANT IN MILWAUKEE, WISCONSIN

## Defender

**FOR REPRODUCTIONS THAT SPEED  
ALL-OUT PRODUCTION**

For lithography and photo-engraving—for photo-copying, Defender Litho and Photo Writ products meet the most difficult reproduction problems of all-out production.

**DEFENDER LITHO TRANSPARENT—**  
**ORTHO—**water-proof base—for economical production of line negatives in lithography and reproductions for engineering use.

**DEFENDER LITHO FILM—ORTHO—**  
safety base—high resolving power for efficient half-tone and line work.

**DEFENDER LITHO NEGATIVE PAPER**  
—**ORTHO—**for line negatives.

**DEFENDER LITHO PLATES—ORTHO—**  
for high contrast negatives in absolute register.

**DEFENDER LITHO DEVELOPER 7-D—**  
in convenient ready-to-mix form.

**DEFENDER PHOTO WRIT—**for high quality photo-copying. Nine grades to meet every requirement.

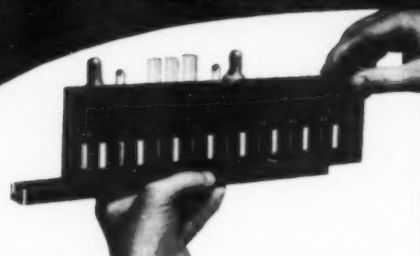
*Write Graphic Arts Department*

**DEFENDER PHOTO SUPPLY CO., INC., ROCHESTER, N. Y.**



## Get BETTER RESULTS

WITH ACCURATE CONTROL OF  
YOUR FOUNTAIN SOLUTION



**T**OO weak acid is as disastrous to a good printing job as too strong acid. You must be able to strike the happy medium . . . not just once, but every time. Modern lithographers use and recommend Taylor pH Slide Comparators which eliminate costly guess-work . . . give you the pH quickly and ACCURATELY.

Write today for free illustrated folder that explains advantages of pH Control in lithography. Or—see your dealer.



**W. A. TAYLOR AND CO.**  
7300 YORK RD. • BALTIMORE, MD.

## BEN DAY, Inc.



**118 East 28th Street, N. Y.**

# LITHOGRAPHIC ABSTRACTS

Abstracts of important current articles, patents, and books, compiled by the Research Department of the Lithographic Technical Foundation, Inc. These abstracts represent statements made by the authors of articles abstracted, and do not express the opinions of the abstractors or of the Research Department. Mimeographed lists have been prepared of (1) Periodicals Abstracted by the Department of Lithographic Research, and (2) Books of Interest to Lithographers. Either list may be obtained for six cents, or both for ten cents in coin or U. S. stamps. Address the Department of Lithographic Research, University of Cincinnati, Cincinnati, Ohio. Original articles cannot be furnished except as photostatic copies at 20 cents per page.

## Photography and Color Correction

**Process Photography—Making Contacts.** Raymond P. Filler. *Lithographers' Journal*, 26, No. 9, December, 1941, p. 381. The making of contact negatives and positives is becoming more important because of the increasing use of the deep-etch method. The two most important requirements are a good vacuum printing frame and proper illumination. The author describes a cylindrical light which can be easily made and which gives excellent illumination. Cleanliness and exposure time are also important in obtaining good contact negatives and positives.

**Color Correcting and Highlighting By Means of Fluorescence Photography.** Alexander Murray, J. A. C. Yule and C. Q. Glassey. *National Lithographer*, 48, No. 12, December, 1941, pp. 12-5. Fluorescence photography and the principles behind its application to color correction are briefly discussed. The materials used in the "Kodagraph Fluorescence Process" are described. A number of details of technique and procedure are carefully explained for the benefit of those who use the process.

**Color Technique.** Anonymous. *MODERN LITHOGRAPHY*, 9, No. 12, December, 1941, pp. 22-24, 55, 65. A very thorough discussion is given

of the technique and equipment necessary in the production of color separation negatives or positives for color photo-lithography. Round half-tone screens are recommended because of the ease with which they can be rotated to obtain the correct screen angles. The lens, filters, exposure, methods of color correction, and the special treatment necessary for different types of copy are included in the discussion.

**The Long Diaphragm Control.** Anonymous. *MODERN LITHOGRAPHY*, 9, No. 12, December, 1941, pp. 29, 33. The Long Diaphragm Control is an instrument which makes it possible to obtain a lens diaphragm adjustment as accurate as 1/200th diameter. As one of the most important considerations in the halftone process is a uniform coordination between lens diaphragm and bellows extension, this instrument, which makes precise control easy, is a very valuable one. A diagram and description of the instrument are given.

**The Curtis Color Analyst.** Anonymous. *MODERN LITHOGRAPHY*, 9, No. 12, December, 1941, pp. 28, 67. The Curtis color analyst is an instrument which provides a method of testing a set of color separations before the plates are made. A description is given of the method of operation. The correct printing ratios can be easily and accurately determined with this instrument and it will also show up negative defects, such as spotty or uneven development and color wedging due to uneven lighting.

## Equipment and Materials

**Anti-Offset Spray.** Anonymous. *American Ink Maker*, 19, No. 11, November, 1941, p. 45. Glyceryl mono-stearate is a synthetic wax-like material which is receiving con-

siderable attention as an effective anti-offset spray. When melted and sprayed on freshly printed sheets, it covers the entire surface with minute particles of wax-like substance which make an ideal surface to prevent offset. Due to its physical properties, it eliminates the skidding and telescoping frequently encountered when using paraffin wax as the spraying medium. It melts at 135 degrees Fahrenheit and does not run under the pressure of highly piled sheets. Paraffin under this pressure tends to run out to the sides of the sheets and then harden, which prevents easy separation of the sheets.

**L. C. Smith Carbon Ribbon Machine.** Anonymous. *MODERN LITHOGRAPHY*, 9, No. 7, July, 1941, p. 51. L. C. Smith & Corona Typewriters, Inc., Syracuse, New York, has just announced the L. C. Smith Super-Speed Carbon Ribbon Machine, which is suitable for the preparation of copy for photo-lithographic and multilith work. The machine is a two-ribbon typewriter, one of which is a regular fabric ribbon and the other a carbon paper ribbon. The two ribbons operate independently of each other, each having its own feeding mechanism. Either one can be used separately without removing the other from the machine. For lithographic work the fabric ribbon is thrown to stencil position and the operator writes directly on the carbon ribbon. Even when equipped with the carbon ribbon attachment, the machine can still be operated as an ordinary standard typewriter.

**The Practical Lithographer—Fitting New Blankets.** Anonymous. *British and Colonial Printer and Stationer*, 129, No. 684, November 27, 1941, pp. 192, 194. It is best, when possible, to replace all of the blankets on a press at the same time, since the impressions with one old and one



## THE KEEN OBSERVER

It is vitally important that you check your pressroom requirements now in order to prepare yourself for that future rush you are anticipating. Don't be caught short and wanting. Because every hour wasted waiting for material is time that cannot be made up and is a total loss.

Our "Over Half Century of Service" is at your command and you can avail yourself of its value by just a phone call.

If you are not now using our offset inks, why not try them and be convinced of their true worth and good quality.

Check on your offset rollers now, and have them reconditioned to look and act like new.

**J. H. & G. B. SIEBOLD, Inc.**

Manufacturers of

**PRINTING INKS LITHOGRAPHIC**

OFFICE: 47 WATTS ST. FACTORY: 101 SIXTH AVE.  
NEW YORK, N. Y.

Phones: Walker 5-5565-66-67-68

A  
**CRAMER  
PLATE**

FOR EVERY

*Reproduction*  
**NEED**

**SUPER CONTRAST • CRACO LITH  
PANCHROME • CONTRAST  
CRAMER "25" • ALPHA**

**PANCHROME PROCESS**

**G. CRAMER DRY PLATE CO.**

**New York ST. LOUIS Chicago**

*Huronette*



*...for fine Offset work*

Really **WHITE**, sturdy, economical . . . specify **HURONETTE** to assure finest lithographing results. Takes roughest usage—meets a wide range of requirements. Samples on request.

#### SPECIFICATIONS

**Color:** Bleach White. **Weights:** 80, 100, 125, 150, 175, 200, 225 lbs. (24 x 36—500). **Sizes (sheets):** 24 x 36—all basic weights; 22½ x 28½—100 lbs. and heavier; 20 x 26 and 26 x 40—100, 125, 150 lbs. only. **Grain:** all long grain. **Jumbo Rolls:** 72 inches wide. **Special Rolls and Sheets:** Sizes to fill trim; min. 65", max. 72". **Special Finishes and Weights** furnished on application.

**PORT HURON SULPHITE & PAPER CO.**

MILLS: Port Huron, Michigan

NEW YORK CHICAGO CLEVELAND OHIO SAN FRANCISCO

## Do You Have Your Copy of PHOTO OFFSET LITHOGRAPHY?

by Donald Nicholson

Production Manager of Ronalds Offset Lithographers, Ltd., Montreal, Canada, and contributor to Modern Lithography.

#### Partial List of Contents

**PREPARATION OF COPY**—Paste-Up; Color Break; Photo-Composing; New Method of Type Preparation; Color Drawings, Kodachrome, etc.

**CAMERA WORK**—Camera Construction; Filters; Developing; Re-Screening Halftones; Color Separation; Duotone; Natural Color Film, etc.

**LAYOUT**—Ganged Jobs; Color Separation; Mechanical Tints; Color Process.

**PLATE MAKING**—Ganged Exposures and Double Exposures; Plate Etches, Gum Arabic, Albumen and Preservatives; Photo-Composing; Paper Prints, Vandyke, etc.; Transparentizers; Glass Keys; Deep-Etched Plates; Imprints.

**PRESS WORK**—Feeding Different Stocks; Pile Regulator; Impression Bars and Push Rules; Harris Feeders; Cut-Out; Timing; Dexter Feeder; Suction and Air; Feeder Trouble Helps; Blanket Wash; Fountain Solutions; Attaching Plate; Lithographic Inks; Reducers; Driers; Binders; Make Ready; Press Troubles; Scumming; Streaks; Paper.

Price \$3.50

Send for your copy!

Please send check with order

**MODERN LITHOGRAPHY**

254 West 31st Street

New York City

new blanket are bound to be different. A description is given of the correct way to set the pressure, punch out the blanket, adjust the packing, and test the blanket for evenness.

### **Planographic Printing Surfaces and Plate Preparation**

**Coarse or Medium Grained Plates.** T. Adling. *Modern Lithographer and Offset Printer*, 37, No. 9, September, 1941, p. 114. Coarse grained plates are not necessary to the best printing of solids. They lead to emulsification of the ink, necessitating doping of the damping water which brings many difficulties. The present tendency is toward the use of finer grains, less water on the press, and more water-resistant inks.

**Graining Lithographic Plates.** Louis Gergele. *Lithographers' Journal*, 26, No. 8, November, 1941, pp. 332, 365. This article discusses the sand and marbles used in graining. There are two types of sand: quartz and silica. The former is good only for coarse poster grain. Emery is a better abrasive than sand and comes in many grades. Both the sand and emery must be clean and uniform if a good grain is to be obtained. Carborundum can be used successfully only in graining steel plates. Of the four kinds of marbles used (clay, glass, steel, and wood), the first two are almost useless, the third is best for plate graining, and the last should be used for aluminum and gelatine plates.

**Development of Lithographic Plates.** William H. Wood (to Harris-Seybold-Potter Company). *U. S. Patent* No. 2,265,829 (December 9, 1941). In a process of making lithographic plates, treating an exposed sensitized lithographic plate with a solution of magnesium chloride modified by containing a small amount of a hydroxydicarboxylic acid.

**Amalgam Printing Plates.** Francis Louis Zack (to Algemeene Cliche Industrie van Tijn & Zack. *German Patent* No. 701,827 (December 24,

1940). The areas of the plate which print are not amalgamated, lie deeper, and are electrolytically coated with a thin layer of chromium or nickel. The non-printing ink-repelling areas are elevated and amalgamated. The printing plate is made of an alloy containing copper 40-80, silver 15-25, and nickel 5-15 parts. (*Chemical Abstracts*, Vol. 35, No. 22, November 20, 1941, p. 8163.)

**Offset Technique—Blind Albumin Plates.** John Stark. *Inland Printer*, 108, No. 3, December, 1941, p. 29. If plates go blind after five or ten thousand impressions, the trouble is probably in the press rather than on the plate. Some causes are: friction due to either bad roller and damper adjustment, too much overpressure, or incorrect distribution of overpressure; too high acid content of water solution (optimum pH for zinc plates is 3.8); improper wetting of ink pigment with vehicle; and improper handling on the press. The procedure for removing part of an image from an albumin plate while leaving the surrounding image untouched is briefly discussed.

**Method of Preparing Printing Plates.** Albert L. Lengel (to The Tribune Publishing Co.). *U. S. Patent* No. 2,261,554 (November 4, 1941). A method of preparing a letterpress printing plate of substantially planographic character which comprises the steps of integrating a plurality of separate halftone films prepared from photographic illustrations, with a principal halftone film prepared from a surface of uniform tone, which principal film is at least as large as the desired plate; and photo-engraving a metal plate from the integrated film thus produced.

**New Synthetic Plate for Litho Industry.** Ellis Mott. *Lithographers' Journal*, 26, No. 9, December, 1941, pp. 384, 407. Two synthetic plates, Photomat and Lithomat, have been developed by the Lithomat Corporation of Boston. Descriptions and procedures for using them are given. It is claimed that these plates (1)

eliminate the problem of oxidation, and (2) save time and materials in the operations of graining, coating, whirling, and mixing of the albumin and dichromate solutions. The types of work for which they have already been employed are discussed.

**Offset Platemaking.** Don Nicholson. *MODERN LITHOGRAPHY*, 9, No. 12, December, 1941, pp. 40-41. The cameraman can help the plate-maker a great deal by standardizing his camera and contact frame exposures, and by time developing his negatives and positives to obtain dense sharp line shots and halftones with good black dots. The procedure and use for blue print keys on zinc and aluminum plates and on glass for registering are discussed. Formulas are given.

### **Paper and Ink**

**Offset Paper at Work.** William Bond Wheelwright. *MODERN LITHOGRAPHY*, 9, No. 12, December, 1941, pp. 38-39, 57. The importance of the strength of a paper depends upon the use to which the paper is to be put. The most important strength properties to evaluate are resistance to tearing, folding, and crumpling. The folding and tearing resistances vary between the grain direction and the cross-grain direction. There are precise laboratory instruments to test these three properties but there are also simple tests which will give approximate ideas of strength. These are described. These simple tests for folding and crumpling yield numerical results but the tearing resistance test does not.

**Measurement of Moisture in Paper (On the Paper Machine) By the Resistance Method.** D. C. Culver. *Paper Industry and Paper World*, 23, 555-61 (1941). A description of the development work, principle, operation and commercial form of the Brown Moist-o-Graph, a moisture-recording and/or signaling device. It is based on the measurement of electrical resistivity by means of a balanced Wheatstone bridge wherein any temporary unbalance is

## When the Going Gets Tough . . .



It takes a national emergency to test the courage and endurance of a people . . . but it's the every-day emergencies which crop up in the lithographic plant that provide the real test for litho inks. As the going gets tougher in the months to come, you can count on Crescent Inks to come through with flying colors on any job . . . in any emergency.

# CRESCENT INK AND COLOR CO.

Walter Conlan, President

464 N. Fifth Street

Philadelphia, Pa.

STANDARDIZE ON

## MECHANO FORM LEDGER and INDEX

Made especially for forms  
that must be preserved.

ASK YOUR PAPER MERCHANT FOR SAMPLE BOOK

PARSONS PAPER CO. HOLYOKE, MASS.

## A REASON WHY

*every one who sells to lithographers should  
advertise in MODERN LITHOGRAPHY.*

It is thoroughly read both by the men who buy—in the office, and by the men who have important influence in the matter of what should be bought—in the shop.

WRITE FOR ADVERTISING RATES TO  
**MODERN LITHOGRAPHY**

254 WEST 31st STREET

NEW YORK, N. Y.

## PHOTO SUPPLIES for the *Graphic Arts*

"The House of Service and Satisfaction"

# NORMAN-WILLETS CO.

316 W. WASHINGTON ST.

CHICAGO, ILL.

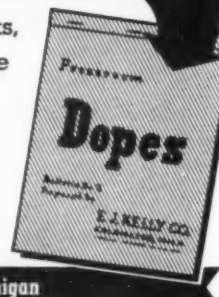
## Free! EVERY PRESSMAN WANTS THIS BOOKLET

Helpful hints about handling inks,  
compounds, driers, etc. Valuable  
information prepared by experts.  
Write for it on your firm letterhead.

It's FREE!

# E. J. KELLY CO.

1829 N. Pitcher St. Kalamazoo, Michigan



## Classified Advertising . .

Brings excellent results at a minimum cost. Rates are only 10c per word with a minimum charge of \$2.00 per issue, except those of individuals seeking employment, where the rate is five cents per word, \$1.00 minimum. Whether you have some surplus equipment or material for sale, have a position open or are looking for a new connection, etc., use space in the Classified Section of Modern Lithography. It will place you in touch with the entire lithographic industry.





electronically amplified. Development work is being carried on with a view to its application to moisture control on the paper machine. (*Chemical Abstracts*, Vol. 35, No. 22, November 20, 1941, p. 8292.)

**Machine-Coated Paper—Problems for the Ink makers.** Anonymous. *Paper Maker and British Paper Trade Journal*, 102, No. 5, November, 1941, pp. 230, 234. Machine-coated papers have brought new problems to the ink maker since most customers expect as good results with machine-coated papers as with regular coated stock. On the machine-coated paper, the coating is much thinner and thus does not completely hide the high and hard spots in the paper which are apt to cause mottle. The coating is also full of minute pin-holes. The problems encountered with the regular coated stock are also briefly discussed.

**The Tackmeter, an Instrument for Analyzing and Measuring Tack—Application to Printing Inks.** Henry Green. *Industrial and Engineering Chemistry* (Analytical Edition), 13, No. 9, September, 1941, pp. 632-639. *American Ink Maker*, 19: No. 11, November, 1941, pp. 31, 33-4; No. 12, December, 1941, pp. 25-7, 29; (to be concluded in the January issue). An instrument is described which permits determination of the time required to rupture a film of ink placed between a horizontal plate and the bottom surface of a vertical cylindrical plunger when the film is ruptured by a force acting vertically on the cylinder to withdraw it from the plate. The force effecting the rupture is termed tack. . . . Under practical printing conditions, the tack of any one ink obviously has an infinite number of values dependent on press speed, thickness of the ink film, and area of contact. Consequently, it is often convenient to speak of relative tack defined as the ratio of tack of an ink to that of a standard substance. Since the printing press probably largely destroys thixotropic structure, it is desirable to break down the thixotropic structure in the ink specimen before making tack deter-

minations by first subjecting the ink film to repeated stress nearly great enough to cause rupture. For any given paper stock and printing speed, tack cannot exceed a certain value without picking, i. e., surface damage to the paper. For successive application of different inks to the same area (multicolored printing) the inks should be applied in order of decreasing relative tack. (*Chemical Abstracts*, 35, No. 20, November 10, 1941, p. 7734.)

## General

**Offset Printing Fundamentals.** Anonymous. *Inland Printer*, 108, No. 2, November, 1941, pp. 65-66. This article is a quotation from "Why Does Lithography Work?"\* by F. J. Tritton. The latter discusses the chemical principles behind the sensitization of the metal by nitric acid and alum, and the desensitization by gum arabic and acid etches. Gum arabic and acid are used in the fountain solution to preserve the desensitization in the non-printing areas. The problem of emulsification is briefly discussed. If a method making it commercially practical to employ a thinner film of water over the plate can be found, it will enable a finer grain to be used, thus giving better reproductions. (\**Modern Lithographer and Offset Printer*, 29: No. 5, May, 1933, pp. 80-2; and No. 6, June, 1933, pp. 106, 108—Abstractor.)

**The Physics and Chemistry of Lithography.** G. Macdougall. *Patra Journal*, 4, No. 6, May, 1941, pp. 83-90. The physical and chemical processes which occur when a litho plate is made and printed, take place at the surface of the plate. These processes are discussed under the following headings: graining, preparing the plate (counter etching), formation of the image, molecules, adsorption, desensitization, etches, and gumming.

## Miscellaneous

**Color Printing.** Samuel Tasker. *British Patent* No. 526,485 (September 19, 1940). Three separate backings

having a light-sensitized colloid coating, such as bichromated gelatin, are exposed through negatives obtained by exposure of sensitized plates or films to light passing through a line, cross-line or other halftone screen and through the color transparency to be copied. Instead it can be light reflected from a color original through the said halftone screen. Each surface is wetted by a wetting roller and then inked with a greasy inking roller. (*Chemical Abstracts*, Vol. 35, No. 20, October 20, 1941, p. 6888.)

**Anti-Offset Spray Utilizes Dry Starch Powders.** Anonymous. *Printing Equipment Engineer*, 63, No. 2, November, 1941, p. 22. A description is given of the apparatus and material used in an anti-offset spray which utilizes dry starch powders. The Beregh Oxy-Dry Sprayer, as it is called, is made by the Beregh Manufacturing Company, Inc. The starch is atomized by a high frequency electric tube, just before falling on the paper. There is also said to be an oxidizing effect upon the ink by virtue of the ozone generated by the gas-filled tube. No dulling of the ink is evident. The device can be used on letterpress, offset-lith, and gravure presses.

**Printing Method and Product Thereof.** Sylvia A. Nelson and Robert F. Nelson. *U. S. Patent* No. 2,261,731 (November 4, 1941). The method of producing a printed paper having a smooth super-calendered surface not sufficiently absorptive of, and consequently not adapted to be printed with, a particular ink, comprising printing an exterior surface of the paper with said ink prior to formation of said supercalendered surface and while it has a surface capable of absorbing, and therefore adapted to be printed by, the ink, and then supercalendering the paper to modify said printed exterior surface of the paper and produce said insufficiently absorptive, smooth surface.

Martin T. Heinicke, 79, founder and vice-president of the St. Louis Lithographing Co., St. Louis, died recently.

## "WHERE-TO-BUY-IT"

NOTE: This is a classified list of the companies which advertise regularly in MODERN LITHOGRAPHY. It will aid you in locating advertisements of equipment, materials or services in which you are particularly interested. Refer to the Advertiser's Index on page 77 for page numbers. *Say you saw it in Modern Lithography.*

### Chemicals

Agfa Ansco  
California Ink Co., Inc.  
Coleman & Bell Co.  
Defender Photo Supply Co.  
Eastman Kodak Co.  
Harris-Seybold-Potter Co.  
LaMotte Chemical Products Co.  
Litho Chemical & Supply Co.  
Mallinckrodt Chemical Works  
Merck & Co., Inc.  
Norman-Willets Co.  
Harold M. Pitman Co.  
Senefelder Co., Inc.  
J. H. & G. B. Siebold, Inc.  
Sinclair and Valentine Co.

### Graining and Regraining

(Zinc, Aluminum, Glass and Multilith Plates)  
Fuchs & Lang Mfg. Co., Div. General Printing Ink Corp.  
Litho Plate Grainers of Detroit  
Litho Plate Graining Co. of America, Inc.  
Maklin Litho Plate Graining Co.  
Photo Litho Plate Graining Co.  
Reliable Litho Plate Graining Co.  
The Senefelder Co., Inc.

### Graining and Regraining Materials

The Senefelder Co., Inc.  
J. H. & G. B. Siebold, Inc.

### Inks—(Varnishes and Dryers)

Bensing Bros. & Deeney  
California Ink Co., Inc.  
Crescent Ink & Color Co. of Penna.  
Martin Driscoll & Co.  
Fuchs & Lang Mfg. Co., Div. General Printing Ink Corp.  
Gaetjens, Berger & Wirth, Inc.  
Charles Eneu Johnson & Co.  
E. J. Kelly Ink Co.  
H. D. Roosen Co.  
The Senefelder Co., Inc.  
J. H. & G. B. Siebold, Inc.  
Sinclair & Carroll Co.  
Sinclair and Valentine Co.

### Miscellaneous

Russell Ernest Baum (Folding Machinery)  
Ben Day, Inc. (Shading Medium)  
International Business Machines Corp. (Typewriters)  
Johnson Stop and Indicator Co. (Drop-Out Method)  
Nelson Associates (Copy Preparation for Lithographic Reproduction)  
Phillips Color Laboratory (Color Separation Services)

### Paper

American Writing Paper Corp.  
Champion Paper and Fibre Co.  
Chillicothe Paper Co.  
Fox River Paper Corp.  
Gilbert Paper Co.  
Hammermill Paper Co.  
The Mead Corp.  
Neenah Paper Co.  
Parsons Paper Co.  
Port Huron Sulphite and Paper Co.

### Paper—Continued

Rising Paper Co.  
The Sorg Paper Co.  
Strathmore Paper Co.  
S. D. Warren Co.  
West Virginia Pulp & Paper Co.  
George A. Whiting Paper Co.  
Whiting-Plover Paper Co.

### Photo Dry Plates and Films

Agfa Ansco  
California Ink Co., Inc.  
G. Cramer Dry Plate Co. (Photo Dry Plates)  
Defender Photo Supply Co.  
Eastman Kodak Co.  
Hammer Dry Plate & Film Co.  
Norman-Willets Co.  
Harold M. Pitman Co.

### Plate Making Equipment & Supplies

Aluminum Co. of America (Aluminum Plates)  
California Ink Co., Inc. (Zinc and Aluminum Plates)  
Clean-O-Lith Co. (Plate Cleaner)  
Craftsman Line-Up Table Corp. (Line-Up and Register Table)  
Fuchs & Lang Mfg. Co., Div. General Printing Ink Corp. (Zinc and Aluminum Plates)  
C. P. Goerz American Optical Co. (Lenses)  
LaMotte Chemical Products Co. (pH Control Apparatus)  
Litho Equipment & Supply Co. (Cameras)  
Litho Plate Cleaning Co. (Plate Cleaner)  
National Carbon Co., Inc. (Carbons)  
Norman-Willets Co. (Cameras, Lenses, etc.)  
Harold M. Pitman Co. (Cameras, Vacuum Frames, Whirlers, etc.)  
Rutherford Machinery Co., Div. General Printing Ink Corp. (Cameras, Photo-Composing Machines)  
The Senefelder Co., Inc. (Aluminum Plates, Litho Stones, etc.)  
W. A. Taylor & Co. (pH Control Apparatus)

### Plate Making Services

Graphic Arts Corp.  
Offset Fine Arts, Inc.

### Pressroom Equipment & Supplies

Sam'l Bingham's Son Mfg. Co. (Rollers)  
Christensen Machine Co. (Bronzers)  
Fuchs & Lang Mfg. Co., Div. General Printing Ink Corp. (Flannel)  
Godfrey Roller Co. (Dampening Rollers)  
Harris-Seybold-Potter Co. (Presses)  
Ideal Roller & Mfg. Co. (Rollers)  
International Press Cleaners & Mfg. Co. (Press Cleaner)  
Kimble Electric Co. (Motors)  
LaMotte Chemical Products Co. (pH Control Apparatus)  
Litho Equipment & Supply Co. (Proving Presses)  
Miehle Printing Press & Mfg. Co. (Presses)  
Rapid Roller Co. (Rollers and Blankets)  
The Rathbun & Bird Co., Inc. (Machinists)  
Roberts & Porter, Inc. (Rollers and Blankets)  
Rutherford Machinery Co., Div. General Printing Ink Corp. (Proof and Test Presses)  
The Senefelder Co., Inc. (Blankets, Molleton, etc.)  
J. H. & G. B. Siebold, Inc. (Rollers, Blankets and Molleton)  
Sinclair and Valentine Co. (Blankets)  
W. A. Taylor & Co., (pH Control for Fountain Solutions)  
Vulcan Proofing Co. (Rollers and Blankets)

## CLASSIFIED

All classified advertisements will be charged for at the rate of ten cents per word, \$2.00 minimum, except those of individuals seeking employment, where the rate is five cents per word, \$1.00 minimum. Address all replies to Classified Advertisements with Box Number, care of Modern Lithography, 254 W. 31st St., New York. **Closing date: 1st of month.**

### For Sale:

Fuchs & Lang #12 Giant Hand Transfer press, bed size 50 x 73, stone and iron bed size 48 x 68, in first class condition on our floor, complete with reversible switches, monitor controller and motor. Arthur Thompson & Co., 109 Market Place, Baltimore, Md.

### For Sale:

1—24" Wesel Camera with stand; 1—19" Goerz Lens and 10 x 12 screen; 1—22 x 28 Wesel Vacuum frame; 1—Carrier Air Conditioning unit, has Humidity Controls. All nearly new—30% to 40% off. Commercial Photo Offset Co., Syracuse, N. Y.

### For Sale:

Engravers and Photographers Proportional Slide Rule 50c postpaid. 10" white-faced rule with magnifying indicator. Calibrated 1 to 48. Also shows area of reduction and enlargement. H. Wiggins, 56 W. 45th Street, New York City.

### For Sale:

23½" 133 line circular screen. 24" Pako Drier, like new. 22" x 34" Plate Whirler—\$175.00. Singer Engineering Co., Complete Plate Making Equipment, 242 Mott Street, New York City.

### For Sale:

Harris offset press 22 x 34 with motor and controller, \$2950. F & L Graining machine and motor, \$350. Wesel 24 inch camera, \$225. Baum folder, 22 x 28, for \$350. Morrison Stitcher, \$225. Wright Drill, \$200. Wright perforator, \$325. Wesel con-

tact frame, \$75. Macbeth arc lamps, \$100. 133-line circular Levy screen, \$400. New Varityper, \$200. Chemicals, inks and plates. Address Box #764.

### For Sale:

19 in. Goerz Artar like new—\$160.00. Also 16 in. Cooke Series 5 Process—\$125.00. W. Schiller & Co., 1109 Locust, St. Louis, Mo.

### Position Wanted:

Plant manager desires position with reliable concern. Have been manager and owner of photo offset plant for ten years. College graduate, familiar with all processes, trained executive. Address Box #765.

### Situation Wanted:

Webendorfer offset pressman, can assist platemaking, composing room and letterpress. Invaluable to small, medium sized shop. Locate anywhere for right opportunity. Address Box #766.

### Situation Wanted:

Competent cameraman and platemaker, accustomed to quality work and having experience as department foreman and supervisor of small plant seeks permanent connection with progressive organization. Any location considered. Address Box #767.

### Pressman's Job Wanted:

Familiar with latest type Harris, and other presses, color and planograph. Deferred classification. Address Box #769.

### Offset Pressman Available:

Experienced better grade of color work. Best of references. Prefer location in East. Address Box #770.

### General Information Concerning Inventions and Patents:

A reference book for inventors and manufacturers, also containing sections on the registration of trademarks and copyrights, and a "Schedule of

Government and Attorneys' Fees"—sent free on request. Simply ask for "booklet" and "fee schedule." Lancaster, Allwine & Roimmell, Registered, Patent and Trade-Mark Attorneys, 402 Bowen Building, Washington, D. C.

### Wanted:

Experienced offset printing salesman. Address Box #768.

### NAPL Holds Meeting

(from page 24)

Carlson, Technical Dept., Harold M. Pitman Co., who spoke on "Platemaking and Plate Surfaces;" J. J. Daugherty, Service Engineer, Lanston Monotype Co., on "General Photo-Practice;" and William Guy Martin, vice-president of Harris-Seybold-Potter Co., on "Press Work and Press Conditions." Mr. Martin was assisted throughout his part of the program by experts which he selected from the audience to answer the various phases of lithographic production which affect press operation. The clinic got under way at approximately 1:30 and was scheduled to close at 6:00. Interest, however, was so keen that it ran way past that time. Much credit for the success of the Chicago conference are due Russell L. Miles as chairman and moderator, to those redoubtable members of the fair sex which compose the firm of Kehoe & Lau, to Bud McCormick, Rex Howard, W. A. Krueger, Jr., Walter E. Soderstrom, and the entire membership of the board of NAPL who voted to make it possible. The Western Section of the National Association of Photo-Lithographers is now a going organization and the mid-year conferences are expected to be held each year.

### Exhibits in Chicago Show

Matt Kandle, color specialist of R. R. Donnelley & Sons Co., Chicago, was represented with four oil paintings in the annual exhibition of the Business Men's Art Club, held at a State street department store during January. The club includes Chicago business and professional men who paint for pleasure in their leisure hours.



## LaMOTTE pH CONTROL METHODS IN THE PLATE AND PRESS ROOMS



LaMOTTE BLOCK COMPARATOR

This compact unit for determining pH of solutions is complete with pH color standards—indicator solutions—marked test tubes and instruction booklet.

Illustrated folder sent on request

LaMotte pH Service offers simple and economical pH apparatus, indicator solutions etc., for use in determining the pH of fountain solutions, etc.

**LaMOTTE CHEMICAL PRODUCTS CO.**

Dept. R., Towson, Baltimore, Md.

*For every* **OFFSET** *Requirement*



*Write us on your business letterhead  
for full information and samples.*

**GEO. A. WHITING PAPER COMPANY**  
MENASHA, WISCONSIN

**We Cover the West Coast  
FOR PLATEMAKING  
EQUIPMENT  
FILMS AND CHEMICALS**

PHOTO PROCESS DEPARTMENT  
**THE CALIFORNIA INK CO., Inc.**  
SAN FRANCISCO LOS ANGELES PORTLAND SEATTLE  
SALT LAKE CITY SHANGHAI, CHINA

Gale H. Myers, Pres.



★ *The best equipment and lithographic talent*

418 S. MARKET ST. • CHICAGO, ILL.



**ZINC and  
ALUMINUM PLATES**  
UNGRAINED—GRAINED—REGRAINED

grained correctly to your specifications

... for your special requirements.

We are manufacturers of METAL-  
SHEETS for ROTAPRINT Machines,  
also square edge plates for  
Multilith Presses.

**THE PHOTO LITHO PLATE  
GRAINING COMPANY**

1207-15 S. Highland Ave.

BALTIMORE, MD.

**THE RATHBUN & BIRD CO., Inc.**

IN BUSINESS SINCE 1898

**MACHINISTS**

For LITHOGRAPHERS—PRINTERS

PLANTS MOVED

REPAIR SERVICE

MACHINES RE-CONDITIONED

85 GRAND STREET

NEW YORK, N. Y.

Telephone: CAnal 6-4145-4146

## ***Not a Trace . . .***

Every year, thousands of inquiries come to advertisers in business magazines which cannot be traced . . . the vast majority undoubtedly originate from some form of advertising—but where? . . . will you help to identify inquiries? . . . mention the publication if you write to advertisers . . . say you saw it in MODERN LITHOGRAPHY.

**THANKS!**

## How Research Can Improve Inks (from page 67)

7. What driers are the most effective with the particular ink and in what quantities should they be added, if at all?
8. What varnishes or other ingredients should be used with the ink and in what quantity should they be used?
9. Are there any other directions or precautions to be observed by the prospective user of the ink?

It would probably be quite helpful to the lithographic pressman to have a label or direction sheet accompanying the ink which would give him this information. Moreover, it would probably save the ink manufacturer service calls; certainly it would save the press manufacturer many needless service calls.

## The Metal Litho Meets Crisis (from page 36)

ment must be exercised, so that spoilage and wanton waste may be eliminated in order to conserve these vital materials.

We all know the status of rubber, and can expect anything to happen in regard to our rubber blankets. With this thought in mind a little more care should be exercised, such as keeping our blankets well powdered when not in use, and in employing the proper solvents for washing, of which there are many good ones on the market, and also straightening out all nicks or bent edges on the press plate in order to prevent fracturing of the rubber; alternating blankets to give them a rest also helps to restore their life and usefulness.

Today the challenge to research is great, as we must retain our high standard of production with many new materials with which to work. Keeping in closer contact with your fellow lithographers will prove beneficial to no little degree in helping to solve some of the many problems confronting us.

Ed Cordes, composing room foreman for Magill-Weinsheimer Co., Chicago, is recuperating from an operation which he underwent at St. Luke's Hospital in that city last month.

# ADVERTISERS' INDEX

FEBRUARY, 1942

For Product Classification See Page 74

Agfa Ansco.....	3rd Cover	Litho Equipment & Supply Co.....	Jan.
Aluminum Co. of America.....	Jan.	Litho Plate Cleaning Co.....	66
American Writing Paper Corp.....	10	Litho Plate Grainers of Detroit.....	Jan.
Bensing Bros. & Deeney.....	66	Lithographic Plate Graining Co. of America, Inc.....	62
Bingham's, Sam'l, Son Mfg. Co.....	48	Maklin Litho Plate Graining Co.....	Jan.
California Ink Co., Inc.....	76	Mallinckrodt Chemical Works.....	Dec.
Champion Paper and Fibre Co.....	20	Mead Corp., The.....	9
Chillicothe Paper Co.....	60	Merck & Co., Inc.....	14
Christensen Machine Co.....	46	Miehle Printing Press & Mfg. Co.....	6 and 7
Classified Advertising.....	75	National Carbon Company, Inc. (Carbon Sales Division).....	Jan.
Clean-O-Lith Co.....	66	Neenah Paper Co.....	12
Coleman & Bell Co.....	60	Nelson Associates, Inc.....	Jan.
Cramer, G., Dry Plate Co.....	70	Norman-Willets Co.....	72
Craftsman Line-Up Table Corp.....	58	Offset Fine Arts, Inc.....	76
Crescent Ink & Color Co. of Penna.....	72	Parsons Paper Co.....	72
Day, Ben, Inc.....	68	Phillips Color Laboratory.....	Jan.
Defender Photo Supply Co.....	68	Photo Litho Plate Graining Co., The.....	76
Driscoll, Martin, Co.....	68	Pitman, Harold M., Co.....	18
Eastman Kodak Co.....	41	Port Huron Sulphite & Paper Co.....	70
Fox River Paper Corp.....	42	Rapid Roller Co.....	8
Fuchs & Lang Mfg. Co., Div. General Ptg. Ink Corp. Bet. 10 and 11		Rathbun & Bird Co., Inc., The.....	76
Gaetjens, Berger & Wirth, Inc.....	56	Reliable Lithographic Plate Co.....	64
Gilbert Paper Co.....	17	Rising Paper Co.....	19
Godfrey Roller Co.....	54	Roberts & Porter, Inc.....	Jan.
Goerz, C. P., American Optical Co.....	66	H. D. Roosen Co.....	62
Graphic Arts Corp.....	Jan.	Rutherford Machinery Co., Div. General Printing Ink Corp.....	Jan.
Hammer Dry Plate & Film Co.....	Jan.	Senefelder Co., Inc.....	2nd Cover
Hammermill Paper Co.....	3	Siebold, J. H. & G. B., Inc.....	70
Harris-Seybold-Potter Co.....	4th Cover	Sinclair & Carroll Co.....	54
Ideal Roller & Mfg. Co.....	16	Sinclair & Valentine Co.....	13
International Business Machines Corp.....	44	Sorg Paper Co., The.....	Jan.
International Press Cleaner & Mfg. Co.....	Jan.	Strathmore Paper Co.....	15
Johnson, Charles Eneu, & Co.....	64	Taylor, W. A., & Co.....	68
Johnson Stop and Indicator Co.....	Jan.	Vulcan Proofing Co.....	Jan.
Kelly, E. J., Ink Co.....	72	Warren, S. D., Co.....	Bet. 50 and 51
Kimble Electric Co.....	64	West Virginia Pulp & Paper Co.....	Oct.
La Motte Chemical Products Co.....	76	"Where-to-Buy-It".....	74
Litho Chemical & Supply Co.....	11	George A. Whiting Paper Co.....	76
		Whiting-Plover Paper Co.....	4

(The Advertisers' Index has been carefully checked but no responsibility can be assumed for any omission.)



*"Keep going, Bongo! Maybe we ain't got nothin' to sell, but we still has a reputation to sustain!"*

*... keep going!*

**W**HETHER you have anything to sell or not, your firm name, your brand names, your trade-mark are all worth just as much as they ever were,—and they will be worth more than ever when this war is over and won. Keep going,—keep your firm and your brands everlasting before those who buy your goods,—don't give them a chance to forget you.

To keep your name and your brands constantly remembered in the lithographic field, we suggest regular advertising in

## MODERN LITHOGRAPHY

254 West 31st Street

New York, N. Y.

## Tale Ends

**R**ECEIVED too late for inclusion in our regular news: A new form of application blank for individual preference ratings has been issued by the Division of Industry Operations, WPB. Use of the new form is covered by Priorities Regulation No. 3, is optional until March 2, mandatory on and after that date. Known as PD-1A, the new forms will be made available by DIO last of this month.

\* \* \*

The University of Chicago Press, which recently observed the 50th anniversary of its founding, is making a new use of the lithographic process which is considered something of a departure in the book publishing field. Prior to 1934, it had been the practice of the University Press to print new books by the letterpress process and to preserve the type for several years so that it would be available if additional printings were required. Installation of an offset press, however, made it possible to modify this system to the great benefit of the plant's financial status. Although first runs are still made by letterpress, proofs are now drawn from the type for use in the lithographing process and the type then destroyed. According to A. W. Bishop, superintendent of the manufacturing division, the Press has determined by experience that if three or more reprintings are to follow, it costs less to make lithographic negatives and plates from these proofs than to get out the original type and prepare it for re-use. A great saving is also made by the elimination of charges for proper storage of the type.

The first offset press installed by the University in 1934 was a 14 x 20, but this was later replaced by the 22 x 29 now being used. Complete platemaking equipment is also included in the lithographing department. In addition to book reprints, the University Press also lithographs book jackets in two and three colors, pictorial inserts for books, and the theses which candidates for higher academic degrees are required to have printed.

MODERN LITHOGRAPHY





## Balanced Sensitivity

ONE of the most important requirements of a panchromatic film is that it render color *accurately* into monochrome. An even more important requirement is that this sensitivity be balanced for *all* colors.

And it is balanced in Agfa Ansco Reprolith Panchromatic.

For this reason, many lithographers use Reprolith Pan in their color separation work. In addition to good

color separation, Reprolith Pan gives you high contrast, great resolving power, wide developing latitude, and full anti-halation protection.

You can also get Reprolith in Regular, Thin Base, and Ortho types. You ought to try it. *Graphic Film Division, Agfa Ansco, Binghamton, N. Y.*

**100 YEARS OF AMERICAN PHOTOGRAPHY**



# WAR CONDITIONS

The conditions of recent months, climaxed by war, have affected Harris operations as they have countless other companies. The change in manufacturing capacity from regular pursuits to war demands, plus shortages of materials, makes it impossible to build Harris presses for sale to the graphic arts industry.

However, every effort will be made to maintain the high standard of service to which Harris users have been accustomed for so many years.

To keep pace with future needs and to promote the continued development of offset, effort will be made to carry forward Harris research, engineering and development activities to the end that progress will have been made when the manufacture of presses for the industry is resumed. The research programs of the Harris Laboratories on the chemistry of lithography will also be continued and products of the Laboratories will be for sale.

Harris merchandising efforts during this period will be devoted to increasing the effective production and use of the printed message.

## HARRIS OFFSET PRESSES

HARRIS · SEYBOLD · POTTER · COMPANY ·

PIONEER BUILDERS OF SUCCESSFUL OFFSET PRESSES

General Offices: 4310 East 71st St., Cleveland, Ohio • Harris Sales Offices: New York, 330 West 43rd St. • Chicago, 343 So. Dearborn St. • Dayton, 810 Washington St. • Atlanta, 120 Spring St., N.W. • San Francisco, 430 Market St. • Harris-Seybold-Potter (Canada) Ltd., Toronto, Montreal • Factories: Cleveland, Dayton